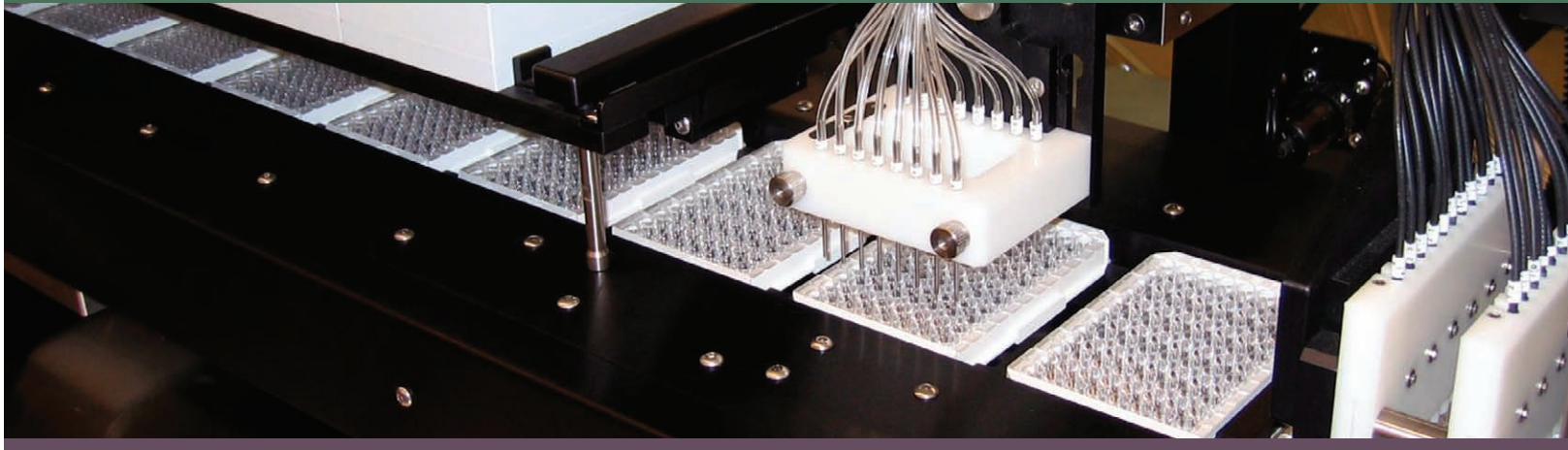
NALGENE®

nunc™

Products for Commercial Applications

Packaging

BioProduction



Diagnostics

NALGENE®

nunc™

Products For Commercial Applications

250mL PET Square Media Bottle

342040, 342044 Series

New bottle size addition to our popular PET Bottles. Lightweight, shatter-resistant and excellent gas barrier properties for storage and shipping of liquid media, buffers and sera. Sterile bottles available with and without HDPE closures (342151 series). Gamma irradiated to 10^{-6} SAL, meets USP Class VI and <661>, non-cytotoxic, non-pyrogenic. *See Packaging Section*

Bioprocess Bag Management System

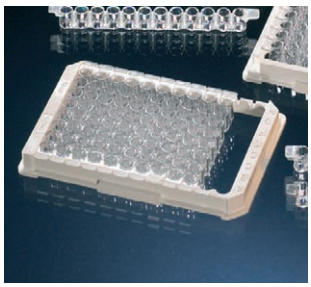
15000 Series

This system's rigid body protects many sizes of bioprocess bags during shipment and use, sets up easily and nests/stacks. Generous tubing compartment accommodates multiple tubing ports. Provides mechanical strength during freezing and complies with ISTA 1A. Contact us for availability. *See BioProduction Section*

Shrink Wrap Bands

312160 Series

The heat-shrink bands found on NALGENE Sterile Square PETG Media Bottles (Cat. No. 2019) are now available separately. Their tamper-resistant seal ensures the integrity of bottle contents. Excellent for manually protecting small production runs. *See Accessories Section*



MicroWell Plates

Various Catalog Numbers

NUNC™ and Thermo Scientific brand 96-well plates are offered in a module (strip) plate format and solid well versions. In solid and breakable strips from 8 to 16 wells with C, F, and StarWell designs for a variety of diagnostic product applications. *See Diagnostics Section*

PVDC/Silicone Septum Closure

342180 Series

Combines the elastomeric sealing of silicone with the improved CO_2 gas barrier of polyvinylidene chloride for NALGENE PET and PETG Media Bottles with a 38-430 neck finish. Sterile, non-cytotoxic, non-hemolytic, non-pyrogenic. Gamma irradiated to 10^{-6} SAL.
See Packaging Section

Tank Liners

333050, 343050 Series

These coex polyethylene film liners are specially-designed to fit NALGENE Cylindrical Tanks up to 200 gallons. Open bag with flat bottom design eases fluid processing in single-use biopharmaceutical applications. Gamma-irradiated and non-sterile. *See BioProduction Section*

View this catalog online at:

www.NNIBioproduction.com

**Teflon is a registered trademark of DuPont.*

Index by catalog number

Index by capacity, catalog number and container closure resin

Nominal Capacity	Cat. No.	Resin Container	Resin Closure	Page
0.5 ml	342800-0005	PPCO	PPCO	19, 116
	342805-0005	PPCO	PPCO	19, 116
	342810-0005	PPCO	PPCO	19, 116
	362800-0005	PPCO	PPCO	22, 119
	362805-0005	PPCO	PPCO	22, 119
1.5 ml	342800-0015	PPCO	PPCO	19, 116
	362800-0015	PPCO	PPCO	22, 119
2 ml	342800-0020	PPCO	PPCO	19, 116
	342805-0020	PPCO	PPCO	19, 116
	342810-0020	PPCO	PPCO	19, 116
	362800-0020	PPCO	PPCO	22, 119
	362805-0020	PPCO	PPCO	22, 119
3 ml	342030-0003	PETG	crimp	122
3.4 ml	312002-9125	HDPE	PP	12, 109
	312004-9125	Op. Amb. HDPE	Op. Amb. PP	13, 111
	312006-9125	PP	PP	15, 113
	312084-9125	Tr. Amb. HDPE	Op. Amb. PP	14, 112
	322002-9125	HDPE	PP	12, 110
	322004-9125	Op. Amb. HDPE	Op. Amb. PP	13, 111
	322006-9125	PP	PP	16, 113
	362002-9125	HDPE	PP	13, 110
	362004-9125	Op. Amb. HDPE	Op. Amber PP	14, 111
	362006-9125	PP	PP	16, 113
	362008-9125	Op. White HDPE	PP	15, 112
4 ml	312750-9125	LDPE	PP	17, 114
	312751-9125	White LDPE	White PP	17, 114
4.5 ml	342800-0045	PPCO	PPCO	19, 116
	362800-0045	PPCO	PPCO	22, 119
5 ml	2035-0005	PETG	White HDPE	121
	322030-0005	PETG	crimp	122
	322032-0005	PETG	HDPE	123
	342030-0005	PETG	crimp	122
	342032-0005	PETG	HDPE	123
	342035-0005	PETG	White HDPE	121
	3500-05	PC	PP	79
8 ml	312084-9025	Tr. Amb. HDPE	Op. Amb. PP	14, 112
	312002-9025	HDPE	PP	12, 109
	312004-9025	Op. Amb. HDPE	Op. Amb. PP	13, 111
	312006-9025	PP	PP	15, 113
	312750-9025	LDPE	PP	17, 114
	312751-9025	Op. White LDPE	Op. White PP	17, 114
	322002-9025	HDPE	PP	12, 110
	322004-9025	Op. Amb. HDPE	Op. Amb. PP	13, 111
	322006-9025	PP	PP	16, 113
	342002-9025	HDPE	White PP	96
	362002-9025	HDPE	PP	13, 110
	362004-9025	Op. Amb. PP	Op. Amb. PP	14, 111
	362006-9025	PP	PP	16, 113
	362008-9025	Op. White HDPE	PP	15, 112
10 ml	2035-0010	PETG	White HDPE	121
	322030-0010	PETG	crimp	122
	322032-0010	PETG	HDPE	123
	342030-0010	PETG	crimp	122
	342032-0010	PETG	HDPE	123
	342033-0010	Tr. Amb. PETG	HDPE	123
	342035-0010	PETG	White HDPE	121
15 ml	2116-0015	PC	PP	44
	2118-9050	PP	PP	45
	2411-0015	LDPE	PP	45
	312002-9050	HDPE	PP	12, 109
	312004-9050	Op. Amb. HDPE	Op. Amb. PP	13, 111
	312006-9050	PP	PP	15, 113
	312084-9050	Tr. Amb. HDPE	Op. Amb. PP	14, 112
	312750-9050	LDPE	PP	17, 114
	312751-9050	White LDPE	White PP	17, 114
	322002-9050	HDPE	PP	12, 110
	322004-9050	Op. Amb. HDPE	Op. Amb. PP	13, 111
	322006-9050	PP	PP	16, 113
	342002-9050	HDPE	White PP	96
	362002-9050	HDPE	PP	13, 110
	362004-9050	Op. Amb. HDPE	HDPE	14, 111
	362006-9050	PP	PP	16, 113
	362008-9050	Op. White HDPE	PP	15, 112

Nominal Capacity	Cat. No.	Resin Container	Resin Closure	Page
20 ml	322032-0020	PETG	HDPE	123
	342030-0020	PETG	crimp	122
	342032-0020	PETG	HDPE	123
	2035-0020	PETG	White HDPE	121
	342035-0020	PETG	White HDPE	121
30 ml	1600-0001	FEP	ETFE	43
	2015-0030	PC	PP	42
	2019-0030	PETG	White HDPE	95
	2116-0030	PC	PP	44
	2118-0001	PP	PP	45
	2411-0030	LDPE	PP	45
	312002-0001	HDPE	PP	32
	312003-0001	LDPE	PP	39
	312004-0001	Op. Amb. HDPE	Op. Amb. PP	35
	312006-0001	PPCO	PP	40
	312016-0030	PPCO	PP	40
	312084-0001	Tr. Amb. HDPE	Op. Amb. PP	28
	312085-0001	Op. Amb. HDPE	Op. Amb. PP	27
	312087-0001	PPCO	PP	29
	312088-0001	LDPE	PP	29
	312089-0001	HDPE	PP	25
	312099-0001	HDPE	PP	33
	312103-0001	LDPE	PP	39
	312104-0001	HDPE	PP	35
	312105-0001	PPCO	PP	41
	312106-0001	Op. Amb. HDPE	Op. Amb. PP	36
	312184-0001	Tr. Amb. HDPE	Op. Amb. PP	29
	312185-0001	Op. Amb. HDPE	Op. Amb. PP	28
	312187-0001	PPCO	PP	30
	312189-0001	HDPE	PP	27
	322020-0030	PETG	HDPE	48
	322021-0030	Tr. Amb. PET	Op. Amb. HDPE	49
	322085-0001	Op. Amb. HDPE	Op. Amb. PP	27
	322089-0001	HDPE	PP	25
	342020-0030	PETG	HDPE	50
	342024-0030	PETG	HDPE	51
	342089-0001	HDPE	White PP	26, 96
	362002-0001	HDPE	PP	32
	362008-0001	Op. White HDPE	PP	37
	362085-0001	Op. Amb. HDPE	Op. Amb. PP	28
	362089-0001	HDPE	PP	26
	DS1630-0001	PFA	PFA	44
	DS2126-0030	PPCO	White PP	67
	DS2127-0030	PC	White PP	56
60 ml	1600-0002	FEP	ETFE	43
	2015-0060	PC	PP	42
	2019-0060	PETG	White HDPE	95
	2116-0060	PC	PP	44
	2118-0002	PP	PP	45
	2411-0060	LDPE	PP	45
	312002-0002	HDPE	PP	32
	312003-0002	LDPE	PP	39
	312004-0002	Op. Amb. HDPE	Op. Amb. PP	35
	312006-0002	PPCO	PP	40
	312016-0060	PPCO	PP	40
	312018-0060	HDPE	PP	34
	312084-0002	Tr. Amb. HDPE	Op. Amb. PP	28
	312085-0002	Op. Amb. HDPE	Op. Amb. PP	27
	312087-0002	PPCO	PP	29
	312088-0002	LDPE	PP	29
	312089-0002	HDPE	PP	25
	312099-0002	HDPE	PP	33
	312103-0002	LDPE	PP	39
	312104-0002	HDPE	PP	35
	312105-0002	PPCO	PP	41
	312106-0002	Op. Amb. HDPE	Op. Amb. PP	36
	312114-0002	HDPE	PP	34
	312184-0002	Tr. Amb. HDPE	Op. Amb. PP	29
	312185-0002	Op. Amb. HDPE	Op. Amb PP	28
	312187-0002	PPCO	PP	30
	312189-0002	HDPE	PP	27
	322020-0060	PETG	HDPE	48
	322021-0060	PETG	Op. Amb. HDPE	49
	322085-0002	Op. Amb. HDPE	Op. Amb. PP	27
	322089-0002	HDPE	PP	25

Index by capacity, catalog number and container closure resin

Nominal Capacity	Cat. No.	Resin Container	Resin Closure	Page
60 ml *(Cont.)*	342020-0060	PETG	HDPE	50
	342023-0060	PETG	HDPE	51
	342024-0060	PETG	HDPE	51
	342089-0002	HDPE	White PP	26, 96
	362002-0002	HDPE	PP	32
	362008-0002	Op. White HDPE	HDPE	37
	362085-0002	Op. Amb. HDPE	PP	28
	362089-0002	HDPE	HDPE	26
	DS1630-0002	PFA	PFA	44
125 ml	1600-0004	FEP	ETFE	43
	1630-0004	PFA	PFA	44
	2015-0125	PC	PP	42
	2019-0125	PETG	White HDPE	95
	2100-0004	FEP	ETFE	43
	2116-0125	PC	PP	44
	2118-0004	PP	PP	45
	2401-0125	LDPE	PP	45
	2411-0125	LDPE	PP	45
	3025-42	PETG	PE	77
	3030-42	PC	PP	79
	312002-0004	HDPE	PP	32
	312003-0004	LDPE	PP	39
	312004-0004	Op. Amb. HDPE	Op. Amb. PP	35
	312006-0004	PPCO	PP	40
	312007-0004	HDPE	PP	33
	312009-0004	Op. Amb. HDPE	Op. Amb. PP	36
	312016-0125	PPCO	PP	40
	312018-0125	HDPE	PP	34
	312084-0004	Tr. Amb. HDPE	Op. Amb. PP	28
	312085-0004	Op. Amb. HDPE	Op. Amb. PP	27
	312087-0004	PPCO	PP	29
	312088-0004	LDPE	PP	29
	312089-0004	HDPE	PP	25
	312097-0004	FLPE	FLPP	37
	312099-0004	HDPE	PP	33
	312103-0004	LDPE	PP	39
	312104-0004	HDPE	PP	35
	312105-0004	PPCO	PP	41
	312106-0004	Op. Amb. HDPE	Op. Amb. PP	36
	312184-0004	Tr. Amb. HDPE	Op. Amb. PP	29
	312185-0004	Op. Amb. HDPE	Op. Amb. PP	28
	312187-0004	PPCO	PP	30
	312189-0004	HDPE	PP	27
	312199-0004	HDPE	PP	35
	322020-0125	PETG	HDPE	48
	322021-0125	PETG	Op. Amb. HDPE	49
	322085-0004	Op. Amb. HDPE	Op. Amb. PP	27
	322089-0004	HDPE	PP	25
	342020-0125	PETG	HDPE	50
	342023-0125	PETG	HDPE w/Septum	51
	342024-0125	PETG	HDPE	51
	342040-0125	PET	HDPE	52
	342044-0125	PET	HDPE	52
	342080-0125	PPCO	HDPE	31
	342089-0004	HDPE	White PP	26, 96
	362002-0004	HDPE	PP	32
	362008-0004	Op. White HDPE	PP	37
	362015-0125	PC	PP	42
	362080-0125	PPCO	HDPE	30
	362085-0004	Op. Amb. HDPE	PP	28
	362089-0004	HDPE	PP	26
	381600-0004	FEP	ETFE	38
	382003-0004	LDPE	PP	39
	382099-0125	HDPE	PP	38
	4112-0125	PETG	White HDPE	91
	4113-0125	PETG	HDPE	92
	4115-0125	PETG	HDPE	92
	4116-0125	PETG	HDPE	92
175 ml	312002-0006	HDPE	PP	32
	312110-0006	PPCO	PP	41
	312114-0006	HDPE	PP	34
250 ml	1600-0008	FEP	ETFE	43
	1630-0008	PFA	PFA	44
	2015-0250	PC	PP	42
	2019-0250	PETG	White HDPE	95
	2100-0008	FEP	ETFE	43
	2116-0250	PC	PP	44
	2118-0008	PP	PP	45
	2401-0250	LDPE	PP	45
	2411-0250	LDPE	PP	45
	312002-0008	HDPE	PP	32
	312003-0008	LDPE	PP	39
	312004-0008	Op. Amb. HDPE	Op. Amb. PP	35
	312006-0008	PPCO	PP	40
	312007-0008	HDPE	PP	33
	312009-0008	Op. Amb. HDPE	Op. Amb. PP	36
	312016-0250	PPCO	PP	40
	312018-0250	HDPE	PP	34
	312084-0008	Tr. Amb. HDPE	Op. Amb. PP	28
	312085-0008	Op. Amb. HDPE	Op. Amb. PP	27
	312087-0008	PPCO	PP	29
	312088-0008	LDPE	PP	29
	312089-0008	HDPE	PP	25
	312097-0008	FEP	PP	37
	312099-0008	HDPE	PP	33
	312103-0008	LDPE	PP	39
	312104-0008	HDPE	PP	35
	312105-0008	PPCO	PP	41
	312106-0008	Op. Amb. HDPE	Op. Amb. PP	36
	312110-0008	PPCO	PP	41
	312114-0008	HDPE	PP	34
	312184-0008	Tr. Amb. HDPE	Op. Amb. PP	29
	312185-0008	Op. Amb. HDPE	Op. Amb. PP	28
	312187-0008	PPCO	PP	30
	312189-0008	HDPE	PP	27
	312199-0008	HDPE	PP	35
	322020-0250	PETG	HDPE	48
	322085-0008	Op. Amb. HDPE	Op. Amb. PP	27
	322089-0008	HDPE	PPP	25
	342020-0250	PETG	HDPE	50
	342024-0250	PETG	HDPE	51
	342040-0250	PET	HDPE	52
	342044-0250	PET	HDPE	52
	342089-0008	HDPE	White HDPE	26, 96
	362002-0008	HDPE	PP	32
	362008-0008	Op. White HDPE	PP	37
	362015-0250	PC	PP	42
	362085-0008	Op. Amb. HDPE	Op. Amb. PP	28
	362089-0008	HDPE	PP	26
	381600-0008	FEP	ETFE	38
	382003-0008	LDPE	PP	39
	382099-0250	HDPE	PP	38
	4112-0250	PETG	White HDPE	91
	4113-0250	PETG	HDPE	92
	4115-0250	PETG	HDPE	92
	4116-0250	PETG	HDPE	92
	DS2126-0250	PPCO	White PP	67
	DS2127-0250	PC	White PP	56
500 ml	1600-0016	FEP	ETFE	43
	1630-0016	PFA	PFA	44
	2015-0500	PC	PP	42
	2019-0500	PETG	White HDPE	95
	2100-0016	FEP	ETFE	43
	2116-0500	PC	PP	44
	2118-0016	PP	PP	45
	2401-0500	LDPE	PP	45
	3005-42	PETG	PE	77
	3005-70	PETG	PE	77
	312002-0016	HDPE	PP	32
	312002-9016	HDPE	PP	32
	312003-0016	LDPE	PP	39
	312004-0016	Op. Amb. HDPE	Op. Amb. PP	35
	312006-0016	PPCO	PP	40
	312007-0016	HDPE	PP	33
	312009-0016	Op. Amb. HDPE	Op. Amb. PP	36
	312016-0500	PPCO	PP	40
	312018-0500	HDPE	PP	34
	312084-0016	Tr. Amb. HDPE	Op. Amb. PP	28
	312085-0016	Op. Amb. HDPE	Op. Amb. PP	27
	312087-0016	PPCO	PP	29

Index by capacity, catalog number and container closure resin

Index by capacity, catalog number and container closure resin

Nominal Capacity	Cat. No.	Resin Container	Resin Closure	Page
5 L	2126-5000	PPCO	White PP	66
	3405-06	PC	PP	80
	3405-16	PC	PP	80
	3405-42	PC	PP	80
	3405-66	PC	PP	80
	3415-16	PETG	PP	78
	3415-42	PETG	PP	78
	342950-0010	Multi-Layer Film	N/A	75
6 L	2240-0015	HDPE	White PP	63
8 L	14100-0002	HDPE	HDPE	70
	14200-0002	PP	PP	71
	2220-0020	LDPE	PP	65
	2221-0020	PPCO	PP	65
9 L	2211-0020	HDPE	White PP	61
	2212-0020	PP	PP	62
	DS2213-0020	PC	PP	63
10 L	2210-0020	LDPE	White PP	56
	2226-0020	PP	White PP	55
	2234-0020	LDPE	White PP	57
	2235-0020	PP	White PP	57
	2240-0025	HDPE	White PP	63
	2242-0025	FLPE	FLPE	64
	2250-0020	PP	White PP	55
	2251-0020	PC	White PP	56
	2256-7020	Amb. HDPE	Amb. PP	57
	3410-08	PC	PP	80
	3410-42	PC	PP	80
	342950-0020	Multi-Layer Film	N/A	75
13 L	2243-0013	HDPE	PP	64
	2243-9013	HDPE	PP	64
15 L	2210-0040	LDPE	White PP	56
	2234-0030	LDPE	White PP	57
19 L	11100-0005	HDPE	HDPE	68
	11102-0005	HDPE	HDPE	69
	11200-0005	PP	PP	69
	54100-0005	HDPE	HDPE	69
	54102-0005	HDPE	HDPE	70
20 L	2210-0050	LDPE	White PP	56
	2211-0050	HDPE	White PP	61
	2212-0050	PP	PP	62
	2214-0050	HDPE	PP	61
	2226-0050	PP	White PP	55
	2234-0050	LDPE	White PP	57
	2235-0050	PP	White PP	57
	2240-0050	HDPE	White PP	63
	2241-0050	HDPE	White PP	62
	2250-0050	PP	White PP	55
	2251-0050	PC	White PP	56
	2261-0050	PC	Sanitary Fittings	58
	332289-0050	HDPE	PP	76
	342289-0050	HDPE	PP	76
	3423-42	PC	PP	80
	342950-0050	Multi-Layer Film	N/A	75
	DS2213-0050	PC	PP	63
23 L	14100-0005	HDPE	HDPE	70
	14200-0005	PP	PP	71
25 L	2210-0065	LDPE	White PP	56
	2242-0050	FLPE	FLPE	64
27 L	14100-0010	HDPE	PP	70
	14200-0010	PP	PP	71
28 L	11100-0007	HDPE	HDPE	68
	11102-0007	HDPE	HDPE	69
	11200-0007	PP	PP	69
	54100-0007	HDPE	HDPE	69
	54102-0007	HDPE	HDPE	70
38 L	11100-0010	HDPE	HDPE	68
	11102-0010	HDPE	HDPE	69
	11200-0010	PP	PP	69
	54100-0010	HDPE	HDPE	69
	54102-0010	HDPE	HDPE	70

Nominal Capacity	Cat. No.	Resin Container	Resin Closure	Page
42 L	14100-0015	HDPE	HDPE	70
	14200-0015	PP	PP	71
50 L	2210-0130	LDPE	White PP	56
	2250-0130	PP	White PP	55
57 L	11100-0015	HDPE	HDPE	68
	11102-0015	HDPE	HDPE	69
	11200-0015	PP	PP	69
	14100-0020	HDPE	HDPE	70
	14100-0040	HDPE	HDPE	70
	14200-0020	PP	PP	71
	54100-0015	HDPE	HDPE	69
	54102-0015	HDPE	HDPE	70
75 L	2650-0020	PP	White PP	71
113 L	11100-0030	HDPE	HDPE	68
114 L	11102-0030	HDPE	HDPE	69
	11200-0030	PP	PP	69
	14100-0045	HDPE	HDPE	70
	14200-0045	PP	PP	71
	54100-0030	HDPE	HDPE	69
	54102-0030	HDPE	HDPE	70
115 L	2650-0030	PP	White PP	71
170 L	14100-0065	HDPE	HDPE	70
208 L	11100-0055	HDPE	HDPE	68
	11102-0055	HDPE	HDPE	69
	11200-0055	PP	PP	69
	54100-0055	HDPE	HDPE	69
	54102-0055	HDPE	HDPE	70
210 L	2650-0055	PP	White PP	71
303 L	11100-0080	HDPE	HDPE	68
378 L	11100-0100	HDPE	HDPE	68
	11200-0100	PP	PP	69
380 L	2650-0100	PP	White PP	71
568 L	11100-0150	HDPE	HDPE	68
757 L	11100-0200	HDPE	HDPE	68

Amb. = Amber
Op. = Opaque
Tr. = Translucent

Products for Commercial Applications

NALGENE®, NUNC™ and Thermo Scientific Brand Products Meet Your Most Critical Packaging, BioProduction and Diagnostic Needs

Thermo Fisher Scientific offers a wide assortment of quality reusable and disposable plastic products for commercial applications in this catalog.

Packaging products include: small bottles, dropper bottles, micro packaging vials, packaging bottles, lab quality bottles, jars, wash bottles, packaging bags and square media bottles.

Bioproduction products include: carboys, jerricans, jugs, bottles, tanks, tank liners, mixers, media bags, Biotainer® products, roller bottles, Cell Factories, culture vessels, fluid transfer systems, flasks and bioprocess bag management systems.

Diagnostic products include: module (strip) plates, solid plates, plate pouches, tubes, small diagnostic bottles, dropper bottles and vials.

ThermoFisher SCIENTIFIC

About Thermo Fisher Scientific

Thermo Fisher Scientific is the world leader in serving science. Thermo Fisher Scientific enables customers to make the world healthier, cleaner and safer by providing analytical instruments, equipment, reagents and consumables, software and services for research, analysis, discovery and diagnostics. Thermo Fisher Scientific has 30,000 employees and serves more than 350,000 customers in pharmaceutical and biotech companies, hospitals and clinical diagnostic labs, universities, research institutions and government agencies as well as environmental, industrial quality and process control settings.

NALGENE Bottles and Closures

NALGENE bottles and closures are engineered to work together. They are guaranteed leakproof because we make and test both components as a system. Most NALGENE closures have no liner that can wear, crease, leak or fall out. The result: your ultimate protection for handling valuable or sensitive materials.

Only top-quality premium-grade resins are used in our containers. We test incoming resins for acceptability and consistency so that we can provide you with a quality product. These products contain no fillers, extenders or plasticizers. Consistent wall thickness is important for strong, durable containers. Inspection during production ensures compliance with wall thickness specifications.

For details on our Quality Assurance Procedures, see the Technical Data Section; “Standard Quality Assurance Procedures for NALGENE Bottles and Closures” or contact Technical.Nalgene@thermofisher.com.

NALGENE plastic containers are designed and manufactured for tough applications. Originally developed for rigorous laboratory conditions, they bring this same high quality to commercial applications. To ensure best results, you should always test each container in its intended application before beginning full-scale production.

Container Labeling

NALGENE packaging bottles and IP2 bottles have a registration notch molded into the bottom for accurate positioning in your labeling machines, ink-jet printers, pad-printing and silk-screen lines. Our bottles readily accept many types of labels and printing, but are not flame-treated at the factory.

Dimensional Data for NALGENE Bottles

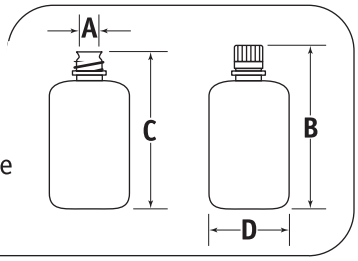
All NALGENE container dimensions and weights stated in this catalog are nominal and for reference purposes only.

We are ready to provide you with product specification sheets, as well as other data and procedures to ensure that our products meet your demanding applications. For more specific information, contact Technical Support at Technical.Nalgene@thermofisher.com and refer to "Contact Information" on the following pages.

Two stylized drawings of NALGENE containers appear regularly in this catalog. The callouts on these drawings match those in the product specifications.

A = Neck I.D. (inside diameter)
B = Height with Closure
C = Height without Closure
D = Container O.D. (outside diameter)

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



NALGENE Product Packaging Information

The first two digits of the catalog number identify the packaging configuration. For example: Cat. No. 322002-9125 is Shrink-Wrap Module Packaging for 4ml Natural HDPE Diagnostic Bottles.

Lab pack bottles – closures assembled (no "3X" prefix)
"31" Bulk pack bottles – closures included but not assembled (bottles and closures shipped in the same carton but packed in separate bags)
"32" Shrink-wrap module packaging
"33" Bulk pack with closures assembled to the bottles
"34" Sterile product
"36" Bottles and closures are bulk packed in separate cartons and must be ordered separately.
"38" Low-particulate bottles – closures assembled

Chemical Resistance Data

For chemical resistance and physical properties data, please consult the Technical Data Section of this catalog.

For the most current and complete chemical resistance information, search our extensive online database at www.NALGENElabware.com. Click on: Technical Data, Chemical Resistance.

Because every application is different, Thermo Fisher Scientific strongly recommends testing our products under your actual conditions to determine their suitability.

NUNC™ Brand Products for Commercial Applications

The raw materials used to manufacture the NUNC brand products in this catalog are chosen for their suitability for the individual products. Each has the optimal characteristics for the intended application. There are minimal additions made to the purest possible materials. No releasing agents or similar additives are used in our injection molding processes.

In this catalog, we have quoted total volumes. These are only meant as guidelines. Users should decide for themselves what volumes to use in their applications.

Recommended working volumes - used in our own laboratories - are also available. Necessary details include dimensions of wells, which may, for example, be required for the optimization of assays. These are included in the current NUNC brand catalog or contact Technical.Nunc@thermofisher.com. All the information is also available on our website, www.nuncbrand.com.

NUNC brand products are also available for cell culture, cryogenics, immunoassays, ART/IVF, storage and handling, proteomics and genomics.

Thermo Scientific Brand Products for Diagnostic Use

Thermo Scientific has great experience in the fields of microplate instrumentation, liquid handling and *in vitro* diagnostics, and plastic molding processes. This experience, combined with rigorous quality control, guarantees the highest quality products with unrivaled consistency – well-to-well, plate-to-plate and lot-to-lot. For detailed technical information on the Thermo Scientific brand products found in this catalog, visit www.thermo.com/microtiter, or contact Technical.Nalgene@thermofisher.com. Also see the Thermo Scientific Finnpipette®, Finntip®, Microtiter® Catalog (CAT-LCP-0107-01).

Thermo Scientific offers customers a complete range of high-end analytical instruments as well as laboratory equipment, software, services, consumables, and reagents to enable integrated laboratory workflow solutions. For more information, visit www.thermofisher.com.

ISO Certifications

The Thermo Fisher Scientific Rochester, New York and Fairport, New York manufacturing facilities extended their Quality Management System to be in compliance to ISO 13485 in May 2003. This upgrade supersedes the ISO 9001 system that was in place since May 1995. These sites are also registered as a GMP (Good Manufacturing Practices) facility for Class I devices (design exempt) with the US Food and Drug Administration.

The Roskilde, Denmark manufacturing facility is certified* to ISO 9001:2000 and ISO 13485:2003 and also is registered as a GMP facility for Class I devices (design exempt) with the US Food and Drug Administration.

This facility also is certified* to Environmental Management System Standard ISO 14001:2004.

*Valid for products manufactured in Denmark. Further information can be found at www.nuncbrand.com.

The Vantaa, Finland manufacturing facility is certified to ISO 13485:9001.

How to Order

Products in this catalog are available through authorized dealers throughout the world who supply quality products for packaging, bioproduction, and diagnostic applications. Some products are sold directly. Refer to the contact information below for assistance in ordering these products in your area.

Contact Information

Direct your technical and availability inquiries for products in this catalog to the nearest Thermo Fisher Scientific location listed.

www.nalgene.com www.nuncbrand.com
www.thermo.com/microtiter

North America • Tel: 1-800-625-4327
- technical.nalgene@thermofisher.com

Asia Pacific • Tel: +65 6770 2807
- intlmktg@thermofisher.com

China • Tel: 86-21-68654588
- info.nnichina@thermofisher.com

Europe (NALGENE) • Tel: +44 (0) 1432 263933
- sales@nalgene.co.uk

Europe (NUNC) • Tel: +45 4631 2000
- info.nunc@thermofisher.com

India • Tel: +91-22-67162200
- sales.LED.india@thermofisher.com

Japan • Tel: +81 3 3816 3355 • info@nalgenunc.co.jp
- www.nalgenunc.co.jp

All other locations • (USA, International Department)
Tel: +1 585 899 7198 • intlmktg@thermofisher.com

Design and construction of NALGENE® bottles

Closure system

Designed and offered as a system, NALGENE bottles and closures are guaranteed leakproof* and offer superior resealability. Most NALGENE closures have no liner** that can wear, crease, cause contamination or separate.

NALGENE closures are made specifically for NALGENE bottles. Use of NALGENE bottles or closures with non-NALGENE components voids the leakproof guarantee. All bottles in this catalog have NALGENE closures available.

Heavy-duty, uniform walls

You can feel and see the difference. Advanced molding technology provides walls with a degree of uniform thickness and quality you will not find in other bottles. The durable walls of NALGENE bottles are unusually resistant to splitting or puncturing.

Bottom

Look at the bottom of a NALGENE bottle. The base is flatter than most for greater stability – especially important when bottles are used on filling lines. Resin identification letters are molded into the bottom, along with the capacity. SPI recycling codes are molded into Lab Quality Bottles 500-ml and larger.

Seal ring

A seal ring molded inside the closure fits tightly against the beveled inner edge (chamfer) of the bottle neck forming a leakproof valve seal as the closure is tightened.† Most bottles and closures are molded of different materials to enhance their sealing capability.

Threads

NALGENE containers have continuous straight-shouldered, semi-buttress threads. They are deeper than you'll find on typical plastic or glass bottles. It's virtually impossible to jump or strip the threads by over-torque.† They're another mark of good bottle design.

Neck ring

Most NALGENE bottles have a neck ring for use with tamper-evident shrink bands.

* *See "Standard Quality Assurance Procedures...," in the Technical Data Section.*

** *Closures with gaskets or liners are noted in the product descriptions.*

† *Torque requirements are noted in the Technical Data Section.*

Top-Quality design and manufacture

NALGENE bottles have been used for years in demanding packaging applications, and are currently specified for:

- Diagnostics
- Biologicals
- Veterinary pharmaceuticals
- Specialty chemicals
- Reagents
- Adhesives

NALGENE bottles feature a leakproof* design, tough plastic construction and are molded from high-purity, virgin resins. Sizes range from 0.5ml micropackaging vials to 2L bottles. Many NALGENE products are offered both sterile and non-sterile.

Most NALGENE Packaging-style bottles are injection-blow molded for uniform wall thickness and strength. A registration notch is molded into every bottle for accurate placement in labeling and silk-screening equipment. SPI recycling codes are molded into all bottles 500ml and larger.

The NALGENE bottle and closure system -- guaranteed leakproof*

Durable NALGENE closures are sold only for use with NALGENE bottles, so there's no risk of leakage because of using poor-quality closures.

NALGENE closures have no liner to wear, crease, leak, cause contamination or separate. A precision-molded closure seal ring and bottle neck finish ensure uniform sealing and consistent leakproof assurance. And to guarantee that these bottles and closure are leakproof, they are tested under pressure*. See "Inside the NALGENE Bottle" for a full explanation of this unique sealing system. Torque requirements are listed in the Technical Data Section.

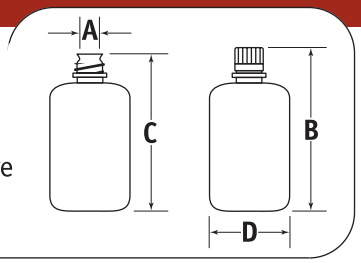
Molded from high-quality materials

NALGENE bottles, vials and their closures are made from high-purity food-grade resins and do not contain plasticizers, fillers or extenders. Select the material best suited to your application, including our most-specified materials: polypropylene (natural PP), low-density polyethylene (natural LDPE) and high-density polyethylene (HDPE) that is available in natural, opaque or translucent amber and opaque white. Also choose containers in PPCO, PC, FLPE, Teflon FEP and PFA, PETG, PET, and ULLDPE/Nylon film laminate. Consult the Technical Data Section of this catalog for guidance in resin selection, email Technical.nalgene@thermofisher.com or visit www.NALGENElabware.com.

*For details, see "Standard Quality Assurance Procedures for NALGENE Bottles and Closures" in the Technical Data section.

HDPE Small Bottles & Vials

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



HDPE Small Bottles & Vials

Product Packaging Information

	Lab pack bottles – closures assembled
"31"	Bulk pack bottles – closures included but not assembled
"32"	Shrink-wrap module packaging
"33"	Bulk pack with closures assembled to the bottles
"34"	Sterile product
"36"	Bottles and closures are bulk packed in separate cartons and must be ordered separately
"38"	Low-particulate bottles – closures assembled

See "Closures for Bulk Packed Bottles" at the end of the Packaging Section

NALGENE Diagnostic Bottles - Bulk Pack with Closures, natural high-density polyethylene; natural polypropylene closures

Cat. No.312002	-9125	-9025	-9050
Nom. Cap., ml	3.4	8	15
Approx. Brim Cap., ml	4.2	12	18
Nom. Weight, g	4	6	7
No. per Case	2,000	2,000	2,000
Finish	13-415	20-415	20-415
mm A	8	13	13
mm B	41	44	58
mm C	39	42	56
mm D	16	25	25

NALGENE Diagnostic Bottles - Tray Pack with Closures, natural high-density polyethylene; natural polypropylene closures

Rigid trays are easy to handle: allow bottles to be filled in the trays. Closures are packaged in a separate bag. For bottle specifications, see the bulk pack version with a "31" catalog number prefix.

Cat. No.322002	-9125	-9025	-9050
Bottle Nominal Cap., ml	3.4	8	15
Module Nom. Dimensions, cm	32.2 x 23.3 x 4.3	33.5 x 26.6 x 4.5	33.5 x 10.5 x 5.0
No. in Module	332	98	112
No. per Case	1,328	1,500	1,500

Closures are not assembled

NALGENE Diagnostic Bottles - Tray Pack with Closures, natural high-density polyethylene; white polypropylene Closures

Sterile version of Cat. No. 322002. Bottles with closures assembled come in an SBS tray.

Sterile

Cat. No.342002	-9025	-9050
Bottle Nominal Cap., ml	8	15
No. in Module	98	112
No. per Case	980	896

Closures are assembled

NALGENE Diagnostic Bottles - Bulk Pack without Closures, natural high-density polyethylene

Order closures separately, Cat. No. 362150 series.

Cat. No.362002	-9125	-9025	-9050
Nom. Cap., ml	3.4	8	15
Approx. Brim Cap., ml	4.2	12	18
Nom. Weight, g	4*	6*	7*
No. per Case	2,000	2,000	2,000
Neck Finish	13-415	20-415	20-415
mm A	8	13	13
mm B	41	44	58
mm C	39	42	56
mm D	16	25	25

**When closure is attached.*

NALGENE Diagnostic Bottles - Bulk Pack with Closures, opaque amber high-density polyethylene; opaque amber polypropylene closures

These bottles meet the requirements of light-resistant containers per USP current edition. Bottles and closures are separately bagged.

Cat. No.312004	-9125	-9025	-9050
Nom. Cap., ml	3.4	8	15
Approx. Brim Cap., ml	4.2	12	18
Nom. Weight, g	4	6	7
No. per Case	2,000	2,000	2,000
Neck Finish	13-415	20-415	20-415
mm A	8	13	13
mm B	41	44	58
mm C	39	42	56
mm D	16	25	25

NALGENE Diagnostic Bottles – Tray Pack with Closures, opaque amber high-density polyethylene; opaque amber polypropylene closures

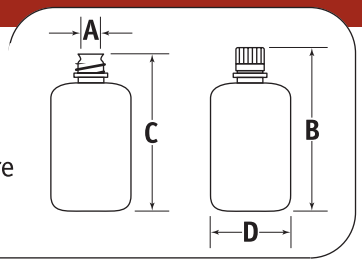
These bottles meet the requirements of light-resistant containers per USP current edition. Closures are separately bagged. For bottle specifications, see the bulk pack version with a “31” catalog number prefix.

Cat. No.322004	-9125	-9025	-9050
Nom. Cap., ml	3.4	8	15
Module Nom. Dimensions, cm	32.2 x 23.3 x 4.3	33.5 x 26.6 x 4.5	33.5 x 26.6 x 5.0
No. in Module	332	150	150
No. per Case	1,328	1,500	1,500

Closures are not assembled.

HDPE Small Bottles & Vials

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



NALGENE Diagnostic Bottles – Bulk Pack without Closures, opaque amber polypropylene

These bottles meet the requirements of light-resistant containers per USP current edition. Order closures separately, Cat. No. 362150.

Cat. No.362004	-9125	-9025	-9050
Nom. Cap., ml	3.4	8	15
Approx. Brim Cap., ml	4.2	12	18
Nom. Weight, g	4*	6*	7*
No. per Case	2,000	2,000	2,000
Neck Finish	13-415	20-415	20-415
mm A	8	13	13
mm B	41	44	58
mm C	39	42	56
mm D	16	25	25

**When closure is attached.*

NALGENE Diagnostic Bottles – Bulk Pack with Closures, translucent amber high-density polyethylene; opaque amber polypropylene closures

These bottles meet the requirements of light-resistant containers per USP current edition. Bottles and closures are separately bagged.

Cat. No.312084	-9125	-9025	-9050
Nom. Cap., ml	3.4	8	15
Approx. Brim Cap., ml	4.2	12	18
Nom. Weight, g	4	6	7
No. per Case	2,000	2,000	2,000
Neck Finish	13-415	20-415	20-415
mm A	8	13	13
mm B	41	44	58
mm C	39	42	56
mm D	16	25	25

Product Packaging Information

	Lab pack bottles – closures assembled	"34"	Sterile product
"31"	Bulk pack bottles – closures included but not assembled	"36"	Bottles and closures are bulk packed in separate cartons and must be ordered separately
"32"	Shrink-wrap module packaging	"38"	Low-particulate bottles – closures assembled
"33"	Bulk pack with closures assembled to the bottles	*See "Closures for Bulk Packed Bottles" at the end of the Packaging Section*	

NALGENE Diagnostic Bottles – Bulk Pack without Closures, opaque white high-density polyethylene

These bottles meet the requirements of light-resistant containers per USP current edition. Order closures separately, Cat. No. 362150 series.

Cat. No.362008	-9125	-9025	-9050
Nom. Cap., ml	3.4	8	15
Approx. Brim Cap., ml	4.2	12	18
Nom. Weight, g	4	6	7
No. per Case	2,000	2,000	2,000
Neck Finish	13-415	20-415	20-415
mm A	8	13	13
mm B	41*	44*	58*
mm C	39	42	56
mm D	16	25	25

**When measured with closure.*

PP Small Bottles and Vials

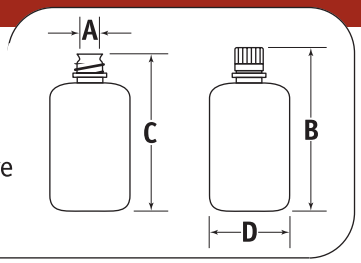
NALGENE Diagnostic Bottles – Bulk Pack with Closures, natural polypropylene; natural polypropylene closures

Bottles and closures are separately bagged.

Cat. No.312006	-9125	-9025	-9050
Nom. Cap., ml	3.4	8	15
Approx. Brim Cap., ml	4.2	12	18
Nom. Weight, g	4	6	7
No. per Case	2,000	2,000	2,000
Neck Finish	13-415	20-415	20-415
mm A	8	13	13
mm B	41	44	58
mm C	39	42	56
mm D	16	25	25

PP Small Bottles and Vials

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



Product Packaging Information

Lab pack bottles – closures assembled
"31" Bulk pack bottles – closures included but not assembled
"32" Shrink-wrap module packaging
"33" Bulk pack with closures assembled to the bottles
"34" Sterile product
"36" Bottles and closures are bulk packed in separate cartons and must be ordered separately
"38" Low-particulate bottles – closures assembled
See "Closures for Bulk Packed Bottles" at the end of the Packaging Section

NALGENE Diagnostic Bottles – Tray Pack, natural polypropylene; natural polypropylene closures

Closures are bagged separately. See Cat. No. 312006 for bottle specifications.

Cat. No.322006	-9125	-9025	-9050
Bottle Nominal Cap., ml	3.4	8	15
Color	Natural	Natural	Natural
Module Nom. Dimensions, cm	32.2 x 23.3 x 4.3	33.5 x 26.6 x 4.5	33.5 x 26.6 x 5.5
No. in Module	332	150	150
No. per Case	1,328	1,500	1,500

Closures are not assembled.

NALGENE Diagnostic Bottles – Bulk Pack without Closures, natural polypropylene

Order closures separately, Cat. No. 362150.

Cat. No.362006	-9125	-9025	-9050
Nom. Cap., ml	3.4	8	15
Approx. Brim Cap., ml	4.2	12	18
Nom. Weight, g	4*	6*	7*
No. per Case	2,000	2,000	2,000
Neck Finish	13-415	20-415	20-415
mm A	8	13	13
mm B	41	44	58
mm C	39	42	56
mm D	16	25	25

**When closure is attached.*

Dropper Bottles

NALGENE Dropper Bottles, natural low-density polyethylene

NALGENE dropper bottles provide reliable, repeatable dispensing of reagents and are an excellent alternative to pipetting and other dispensing devices. Excellent chemical resistance; materials are suitable for most biotech, diagnostic, and pharmaceutical applications. The flexible, contact-clear LDPE dropper bottle permits easy content identification. Available in three convenient sizes. Dropper control tip snaps into place for a secure fit and delivers 40µl drops (based on water; viscosity affects drop size). Drops are dispensed one at a time.

For a complete system, order fitments and closures separately.

Cat. No.312750	-9125	-9025	-9050
Cap., ml	4	8	15
Neck Finish	15-415	15-415	15-415
No. per Case	2000	2000	2000

NALGENE Dropper Bottles, white low-density polyethylene

NALGENE dropper bottles provide reliable, repeatable dispensing of reagents and are an excellent alternative to pipetting and other dispensing devices. These white dispensing bottles are ideal for UV light-sensitive products. Excellent chemical resistance; materials are suitable for most biotech, diagnostic and pharmaceutical applications. Available in three convenient sizes. Dropper control tip snaps into place for a secure fit and delivers 40 or 50µl drops (based on water; viscosity affects drop size). Drops are dispensed one at a time.

For a complete system, order fitments and closures separately.

Cat. No.312751	-9125	-9025	-9050
Cap., ml	4	8	15
Neck Finish	15-415	15-415	15-415
No. per Case	2000	2000	2000

NALGENE Fitment (Dispensing Tip) for Dropper Bottles, natural low-density polyethylene

Fits NALGENE Dropper Bottles Cat. Nos. 312750 (natural LDPE) and 312751 (white LDPE.) LDPE offers excellent chemical resistance, making the tips suitable for most Biotech and Pharmaceutical applications. Bottles can be squeezed easily for critical drop control. Two drop sizes to choose from.

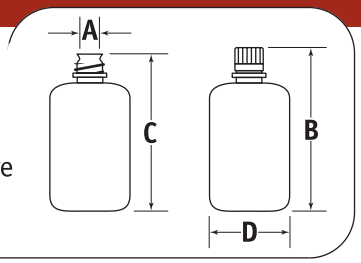
Must be ordered with bottles and closures (Cat. No. 312760) to complete dropper bottle system.

Cat. No.	Volume	Height, mm	Dia., mm	No. per Case
312759-0001	40µl*	16.50	11.2	2000
312758-0001	50µl*	16.50	11.2	2000

**Of drop dispensed*

Dropper Bottles

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



Product Packaging Information

Lab pack bottles – closures assembled
"31" Bulk pack bottles – closures included but not assembled
"32" Shrink-wrap module packaging
"33" Bulk pack with closures assembled to the bottles
"34" Sterile product
"36" Bottles and closures are bulk packed in separate cartons and must be ordered separately
"38" Low-particulate bottles – closures assembled
See "Closures for Bulk Packed Bottles" at the end of the Packaging Section

NALGENE Closures for Dropper Bottles, polypropylene

Fits NALGENE Dropper Bottles Cat. Nos. 312750, 312751.

Must be ordered to complete Dropper Bottle System.

Cat. No.312760	-0000	-0010	-0020	-0040	-0050	-0060
Color	Natural	White	Yellow	Green	Red	Blue
Finish	15-415	15-415	15-415	15-415	15-415	15-415
No. per Case	2000	2000	2000	2000	2000	2000

Micro Packaging Vials and Closures-Sterile

NALGENE Micro Packaging Vials, Sterile, natural polypropylene copolymer

These 0.5, 1.5, 2.0, and 4.5-ml vials are molded from high purity, low-metal content polypropylene copolymer (PPCO) resin. The 0.5, 2.0, and 4.5-ml vials are skirted, with conical interiors to allow recovery of entire contents. The 1.5-ml vial has a conical design and fits easily in most biotechnology and diagnostic equipment. Vials and closures are pressure-tested together at 7.5 PSIG (51.7kPa) for air shipment. Vials and closures meet requirements of FDA CFR21 177.1520 for food and beverage use, USP Class VI and are non-pyrogenic. Single-use vials can be centrifuged at 13,000 x g. Components are provided sterile and non-sterile. Colored closures packaged separately; see Cat. Nos. 342820, 342821, 342830.

Sterile - Natural polypropylene copolymer

Cat. No.342800	-0005	-0015	-0020	-0045
Nom. Cap., ml	0.5	1.5	2.0	4.5
Approx. Brim Cap., ml	0.9	1.9	2.2	4.5
Nom. Weight, g	1.6	1.0	1.5	3.0
No. per Case	1,000	1,000	1,000	1,000
Neck Finish	11	11	11	13
mm A	8.4	8.4	8.4	9.4
mm B	49.0†	47.2†	49.0†	76.9
mm C	45.7	43.2	45.7	74.7
mm D	12.9*	12.9*	12.9*	12.3

Sterile - Amber polypropylene copolymer

Cat. No.342805	-0005	-0020
Nom. Cap., ml	0.5	2.0
Approx. Brim Cap., ml	0.9	2.2
Nom. Weight, g	1.6	1.5
No. per Case	1,000	1,000
Neck Finish	11	11
mm A	8.4	8.4
mm B	49.0†	49.0†
mm C	45.7	45.7
mm D	12.9*	12.9*

Sterile - polypropylene copolymer**

Cat. No.342810	-0005	-0020
Nom. Cap., ml	0.5	2.0
Approx. Brim Cap., ml	0.9	2.2
Nom. Weight, g	1.6	1.5
No. per Case	1,000	1,000
Neck Finish	11	11
mm A	8.4	8.4
mm B	49.0†	49.0†
mm C	45.7	45.7
mm D	12.9*	12.9*

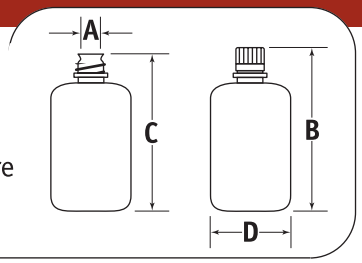
†Height, high-profile closure assembled.

**At neck ring, vial body is 10.2.*

***Sterilized using ebeam irradiation.*

Micro Packaging Vials and Closures-Sterile

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



NALGENE Closures with Color Coders for Micro Packaging Vial, polypropylene copolymer

Leakproof, threaded screw closure has no O-ring to fall out or contaminate contents. Color-coded inserts are permanently attached, free of toxic heavy metals and do not come in contact with vial contents.

Sterile

Cat. No.342820	-0110	-0112	-0113	-0114	-0115	-0116	-0117	-0118	-0119	-1110
Coder Color	No coder	Yellow	Orange	Green	Red	Blue	Gold	Purple	Natural	Teal
No. per Case	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Neck Finish, mm	11	11	11	11	11	11	11	11	11	11

NALGENE Micro Packaging Vial Closure, Low Profile, polypropylene copolymer

NALGENE Low-Profile Closures are offered in a variety of colors for quick identification. Leakproof closures are molded of high-purity, low metal-content polypropylene copolymer (PPCO) resin - excellent for PCR reagents. Meet the requirements of FDA CFR21 177.1520, USP Class VI, are noncytotoxic and non-pyrogenic.

Sterile

Cat. No.342821	-0110	-0111	-0112	-0114	-0115	-0116	-0118	-1111	-1112
Closure Color	Natural	White	Yellow	Green	Red	Blue	Purple	Amber	Pink
No. per Case	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Neck Finish, mm	11	11	11	11	11	11	11	11	11

NALGENE Closures with Color Coders for Micro Packaging Vials, polypropylene copolymer, amber

Leakproof, threaded screw closure has no O-ring to fall out and contaminate contents. Color-coded inserts are permanently attached, free of toxic heavy metals, and do not come in contact with vial contents. Closures meet the requirements of light-resistant containers per USP latest edition.

Sterile

Cat. No.342825	-0110	-0111	-0112	-0113	-0114	-0115	-0116	-0117	-0118	-0119	-1110	-1111
Coder Color	No Coder	White	Yellow	Orange	Green	Red	Blue	Gold	Purple	Natural	Teal	Amber
No. per Case	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Neck Finish, mm	11	11	11	11	11	11	11	11	11	11	11	11

NALGENE Micro Packaging Vial Closures for 4.5ml Vials, polypropylene copolymer

Leakproof, threaded screw closure has no O-ring to fall out or contaminate contents. Meet the requirements of FDA 21CFR 177.1520, USP Class VI, are non-cytotoxic and non-pyrogenic.

Sterile

Cat. No.342826	-0110	-0111	-0114
Closure Color	Natural	White	Green
Neck Finish, mm	13	13	13
No. per Case	1,000	1000	1,000

NALGENE Closures with Color Coders for Micro Packaging Vial, high-density polyethylene

Leakproof, threaded screw closure has no O-ring to fall out or contaminate contents. Color-coded inserts are permanently attached and free of toxic heavy metals. Inserts do not come in contact with vial contents. Meet the requirements of FDA 21CFR 177.1520, USP Class VI, are non-cytotoxic and non-pyrogenic.

Sterile

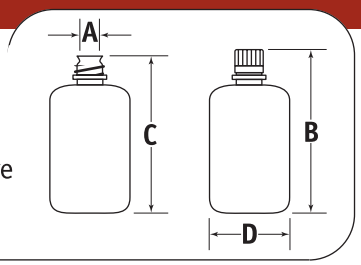
Cat. No.342830	-0110	-0111	-0112	-0113	-0114	-0115	-0116	-0117	-0118	-0119	-1110
Coder Color	No Coder	White	Yellow	Orange	Green	Red	Blue	Gold	Purple	Natural	Teal
Neck Finish, mm	11	11	11	11	11	11	11	11	11	11	11
No. per Case	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1000

Sterile

Cat. No.342830	-5110	-5114	-5116	-5118
Coder Color	Lt. Tan	Lt. Green	Lt. Blue	Lt. Purple
Neck Finish, mm	11	11	11	11
No. per Case	1,000	1,000	1,000	1,000

Micro Packaging Vials and Closures-Non Sterile

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



Micro Packaging Vials and Closures-Non Sterile

NALGENE Micro Packaging Vials, polypropylene copolymer

These 0.5, 1.5, 2.0, and 4.5-ml vials are molded from high purity, low-metal content polypropylene copolymer (PPCO) resin. The 0.5, 2.0, and 4.5-ml vials are skirted, with conical interiors to allow recovery of entire contents. The 1.5-ml vial has a conical design and fits easily in most biotechnology and diagnostic equipment. Vials and closures are pressure-tested together at 7.5 PSIG (51.7kPa) for air shipment. Vials and closures meet requirements of FDA CFR21 177.1520 for food and beverage use, USP Class VI and are non-pyrogenic. Single-use vials can be centrifuged at 13,000 x g. Components are provided sterile. Colored closures packaged separately; see Cat. Nos. 342820, 342821.

Non-Sterile - Natural polypropylene copolymer

Cat. No.362800	-0005	-0015	-0020	-0045
Nom. Cap., ml	0.5	1.5	2.0	4.5
Approx. Brim Cap., ml	0.9	1.9	2.2	4.5
Nom. Weight, g	1.6	1.0	1.5	3.0
No. per Case	1,000	1,000	1,000	1,000
Neck Finish	11	11	11	13
mm A	8.4	8.4	8.4	9.4
mm B	49.0†	47.2†	49.0†	76.9
mm C	45.7	43.2	45.7	74.7
mm D	12.9*	12.9*	12.9*	12.3

Non-Sterile - Amber polypropylene copolymer

Cat. No.362805	-0005	-0020
Nom. Cap., ml	0.5	2.0
Approx. Brim Cap., ml	0.9	2.2
Nom. Weight, g	1.6	1.5
No. per Case	1,000	1,000
Neck Finish	11	11
mm A	8.4	8.4
mm B	49.0†	49.0†
mm C	45.7	45.7
mm D	12.9*	12.9*

†Height, high-profile closure assembled.
**At neck ring, vial body is 10.2.*

NALGENE Closures with Color Coders for Micro Packaging Vials, polypropylene copolymer

Leakproof, threaded screw closure has no O-ring to fall out or contaminate contents. Color-coded inserts are permanently attached, free of toxic heavy metals and do not come in contact with vial contents.

Non-Sterile

Cat. No.362820	-0110	-0111	-0112	-0113	-0114	-0115	-0116	-0117	-0118	-0119	-1110
Coder Color	No coder	White	Yellow	Orange	Green	Red	Blue	Gold	Purple	Natural	Teal
Neck Finish, mm	11	11	11	11	11	11	11	11	11	11	11
No. per Case	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000

NALGENE Micro Packaging Vial Closure, Low Profile, polypropylene copolymer

NALGENE Low-Profile Closures are offered in a variety of colors for quick identification. Closures are molded of high-purity, low metal-content polypropylene copolymer (PPCO) resin-excellent for PCR reagents. Meet the requirements of FDA CFR21 177.1520, USP Class VI, are noncytotoxic and non-pyrogenic.

Non-Sterile

Cat. No.362821	-0110	-0111	-0112	-0114	-0115	-0116	-0118	-1111	-1112
Closure Color	Natural	White	Yellow	Green	Red	Blue	Purple	Amber	Pink
Neck Finish, mm	11	11	11	11	11	11	11	11	11
No. per Case	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000

NALGENE Closures with Color Coders for Micro Packaging Vials, polypropylene copolymer, amber

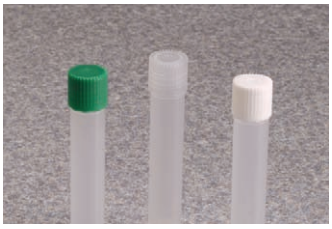
Leakproof, threaded screw closure has no O-ring to fall out of contaminate contents. Color-coded inserts are permanently attached and free of toxic heavy metals, and do not come in contact with vial contents. Closures meet the requirements of light-resistant containers per USP latest edition.

Non-Sterile

Cat. No.362825	-0111	-0112	-0113	-0114	-0115	-0116	-0117	-0118	-0119	-1110	-1111
Coder Color	White	Yellow	Orange	Green	Red	Blue	Gold	Purple	Natural	Teal	Amber
Neck Finish, mm	11	11	11	11	11	11	11	11	11	11	11
No. per Case	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000

NALGENE Micro Packaging Vial Closures for 4.5ml Vials, polypropylene copolymer

Leakproof, threaded screw closure has no O-ring to fall out or contaminate contents. Meet the requirements of FDA 21CFR 177.1520, USP Class VI, are non-cytotoxic and non-pyrogenic. Available sterile (342826-xxxx).

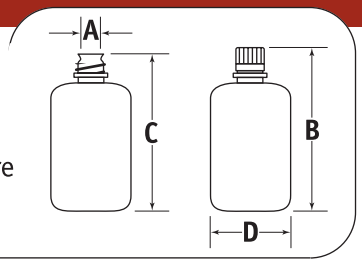


Non-Sterile

Cat. No.362826	-0110	-0111	-0114
Closure Color	Natural	White	Green
Neck Finish, mm	13	13	13
No. per Case	1,000	1000	1,000

Micro Packaging Vials and Closures-Non Sterile | Storage Box for Micro Packaging Vials

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



NALGENE Closures with Color Coders for Micro Packaging Vials, high-density polyethylene

Leakproof, threaded screw closure has no O-ring to fall out or contaminate contents. Color-coded inserts are permanently attached and free of toxic heavy metals. Inserts do not come in contact with vial contents. Meet the requirements of FDA 21CFR 177.1520, USP Class VI, are non-cytotoxic and non-pyrogenic.

Non-Sterile

Cat. No.362830	-0110	-0111	-0112	-0113	-0114	-0115	-0116	-0117	-0118	-0119	-1110
Coder Color	No Coder	White	Yellow	Orange	Green	Red	Blue	Gold	Purple	Natural	Teal
Neck Finish, mm	11	11	11	11	11	11	11	11	11	11	11
No. per Case	1,000	1,000	1,000	1000	1,000	1,000	1,000	1,000	1,000	1,000	1000

Non-Sterile

Cat. No.362830	-5110	-5114	-5116	-5118
Coder Color	Lt. Tan	Lt. Green	Light Blue	Lt. Purple
Neck Finish, mm	11	11	11	11
No. per Case	1,000	1,000	1,000	1,000

Storage Box for Micro Packaging Vials

NALGENE Micro Packaging Vial Storage Box, polycarbonate

Specially designed for secure storage of NALGENE Micro Packaging Vials. 10 x 10 tube array accommodates 0.5-, 1.5- and 2.0-ml size vials. Clear cover allows easy tube identification. Removable internal tray. Durable PC material withstands freezing* and is autoclavable. Cover and stackable boxes have notched key fit.

Cat. No.312850	-1010
No. per Case	24
Dim., L x W x H, mm	146 x 145 x 63.5

**Not for use in liquid-phase liquid nitrogen.*

HDPE Packaging Bottles

Product Packaging Information

Lab pack bottles – closures assembled
"31" Bulk pack bottles – closures included but not assembled
"32" Shrink-wrap module packaging
"33" Bulk pack with closures assembled to the bottles
"34" Sterile product
"36" Bottles and closures are bulk packed in separate cartons and must be ordered separately
"38" Low-particulate bottles – closures assembled
See "Closures for Bulk Packed Bottles" at the end of the Packaging Section

TM1Bottle neck design is protected by US Trademark Reg. No. 2857283

NALGENE Narrow-Mouth Packaging Bottles, natural high-density polyethylene; natural polypropylene closures

Cat. No.312089	-0001	-0002	-0004	-0008	-0016	-0032TM1
Nom. Cap., ml	30	60	125	250	500	1000
Approx. Brim Cap., ml	34	64	143	289	555	1,090
Nom. Weight, g	8	9	16	26	40	78
No. per Case	1,000	1,000	500	250	125	50
Neck Finish	20-415	20-415	24-415	24-415	28-415	38-430
mm A	13	13	18	18	20	28
mm B	61	84	102	132	170	216
mm C	58	81	99	130	168	213
mm D	36	38	51	61	74	91

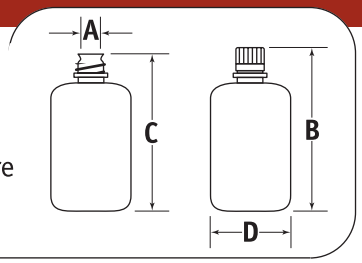
NALGENE Narrow-Mouth Packaging Bottles in Shrink Wrap Trays, natural high-density polyethylene; natural polypropylene closures

Trays are lint-free and rigid. Bottles can be filled in trays. For bottle specifications, please see the bulk-pack entry with 312089 series.

Cat. No.322089	-0001	-0002	-0004	-0008
Bottle Nominal Cap., ml	30	60	125	250
No. in Tray	54	45	24	30
No. per Case	1,050	1,050	300	300
Tray Nom. Dimensions, cm	37 x 22 x 6.3	41.4 x 24.8 x 8.3	33.7 x 23.3 x 9.6	40.8 x 27.9 x 13.2

HDPE Packaging Bottles

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



NALGENE Narrow-Mouth Packaging Bottles, natural high-density polyethylene; white polypropylene closures

Sterile narrow mouth HDPE bottles with white PP closures have excellent chemical resistance. Bottles are manufactured and packed in a controlled environment to minimize biological and particulate contamination. Bottles are packed in shrink wrapped trays.

Sterile

Cat. No.342089	-0001	-0002	-0004	-0008	-0016	-0032™1
Nom. Cap., ml	30	60	125	250	500	1000
Closure Size, mm	20-415	20-415	24-415	24-415	28-415	38-430
No. in Tray	54	45	24	30	20	12
No. per Case	864	540	240	180	120	24
mm A	13	13	18	18	20	28
mm B	61	84	102	132	170	216
mm C	58	81	99	130	168	213
mm D	36	38	51	61	74	91

™1Bottle neck design is protected by US Trademark Reg. No. 2857283

NALGENE Narrow-Mouth Packaging Bottles – Without Closures, natural high-density polyethylene

Order closures separately, Cat. No. 362150 series.

Cat. No.362089	-0001	-0002	-0004	-0008	-0016	-0032™1
Nom. Cap., ml	30	60	125	250	500	1000
Approx. Brim Cap., ml	34	64	143	289	555	1,090
Nom. Weight, g	8	9	16	26	40	78
No. per Case	1,000	1,000	500	250	125	50
Neck Finish	20-415	20-415	24-415	24-415	28-415	38-430
mm A	13	13	18	18	20	28
mm B*	61	84	102	132	170	216
mm C	58	81	99	130	168	213
mm D	36	38	51	61	74	91

When measured with closure assembled.

NALGENE Wide-Mouth Packaging Bottles, natural high-density polyethylene; natural polypropylene closures

Cat. No.312189	-0001	-0002	-0004	-0008	-0016	-0032
Nom. Cap., ml	30	60	125	250	500	1,000
Approx. Brim Cap., ml	38	70	150	300	575	1,090
Nom. Weight, g	10	15	20	30	55	85
No. per Case	1,000	1,000	500	250	125	50
Neck Finish	28-415	28-415	38-415	43-415	53-415	63-415
mm A	21	21	28	33	43	51
mm B	62	86	99	131	168	199
mm C	60	83	97	127	164	194
mm D	34	38	51	62	73	91

NALGENE Narrow-Mouth Packaging Bottles, opaque amber high-density polyethylene; opaque amber polypropylene closures

These bottles meet the requirements of light-resistant containers per USP latest edition.

Cat. No.312085	-0001	-0002	-0004	-0008	-0016	-0032
Nom. Cap., ml	30	60	125	250	500	1,000
Approx. Brim Cap., ml	34	64	143	289	555	1,090
Nom. Weight, g	8	9	16	26	40	78
No. per Case	1,000	1,000	500	250	125	50
Neck Finish	20-415	20-415	24-415	24-415	28-415	38-430
mm A	13	13	18	18	20	28
mm B	61	84	102	132	170	216
mm C	58	81	99	130	168	213
mm D	36	38	51	61	74	91

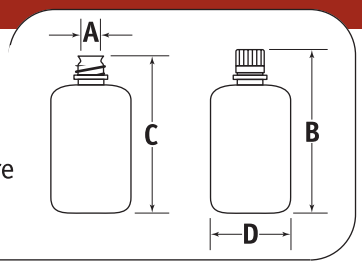
NALGENE Narrow-Mouth Packaging Bottles in Shrink-Wrap Trays, opaque amber high-density polyethylene; opaque amber polyproplyene closures

Trays are lint-free and rigid. Bottles can be filled in trays. For bottle specifications, please see the bulk packed entry 312085 series.

Cat. No.322085	-0001	-0002	-0004	-0008
Nom. Cap., ml	30	60	125	250
No. in Tray	70	70	30	30
No. per Case	1,050	1,050	300	300
Tray Nom. Dimensions, cm	37 x 22 x 6.3	41.4 x 24.8 x 8.3	33.7 x 23.3 x 9.6	40.8 x 27.9 x 13.2

HDPE Packaging Bottles

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



NALGENE Narrow-Mouth Packaging Bottles – Without Closures, opaque amber high-density polyethylene

These bottles meet the requirements of light-resistant containers per USP latest edition. Order closures separately, Cat. No. 362150 Series.

Cat. No.362085	-0001	-0002	-0004	-0008	-0016	-0032™1
Nom. Cap., ml	30	60	125	250	500	1,000
Approx. Brim Cap., ml	34	64	143	289	555	1,090
Nom. Weight, g	8	9	16	26	40	78
No. per Case	1,000	1,000	500	250	125	50
Neck Finish	20-415	20-415	24-415	24-415	28-415	38-430
mm A	13	13	18	18	20	28
mm B	61	84	102	132	170	216
mm C	58	81	99	130	168	213
mm D	36	38	51	61	74	91

NALGENE Wide-Mouth Packaging Bottles, opaque amber high-density polyethylene; opaque amber polypropylene closures

These bottles meet the requirements of light-resistant containers per USP latest edition.

Cat. No.312185	-0001	-0002	-0004	-0008	-0016	-0032
Nom. Cap., ml	30	60	125	250	500	1,000
Approx. Brim Cap., ml	38	70	150	300	575	1,090
Nom. Weight, g	10	15	20	35	55	85
No. per Case	1,000	1,000	500	250	125	50
Neck Finish	28-415	28-415	38-415	43-415	53-415	63-415
mm A	21	21	28	33	43	51
mm B	62	86	99	131	168	199
mm C	60	83	97	127	164	194
mm D	34	38	51	62	73	91

NALGENE Narrow-Mouth Packaging Bottles, translucent amber high-density polyethylene; opaque amber polypropylene closures

These bottles meet the requirements of light-resistant containers per USP latest edition.

Cat. No.312084	-0001	-0002	-0004	-0008	-0016	-0032™1
Nom. Cap., ml	30	60	125	250	500	1,000
Approx. Brim Cap., ml	34	64	143	289	555	1,090
Nom. Weight, g	8	9	16	26	40	78
No. per Case	1,000	1,000	500	250	125	50
Neck Finish	20-415	20-415	24-415	24-415	28-415	38-430
mm A	13	13	18	18	20	28
mm B	61	84	102	132	170	216
mm C	58	81	99	130	168	213
mm D	36	38	51	61	74	91

NALGENE Wide-Mouth Packaging Bottles, translucent amber high-density polyethylene; opaque amber propylene closures

These bottles meet the requirements of light-resistant containers per USP latest edition.

Cat. No.312184	-0001	-0002	-0004	-0008	-0016	-0032
Nom. Cap., ml	30	60	125	250	500	1,000
Approx. Brim Cap., ml	38	70	150	300	575	1,090
Nom. Weight, g	10	15	20	35	55	85
No. per Case	1,000	1,000	500	250	125	50
Neck Finish	28-415	28-415	38-415	43-415	53-415	63-415
mm A	21	21	28	33	43	51
mm B	62	86	99	131	168	199
mm C	60	83	97	127	164	194
mm D	34	38	51	62	73	91

LDPE Packaging Bottles

NALGENE Narrow-Mouth Packaging Bottles, natural low-density polyethylene; natural polypropylene closures

These bottles have excellent flexibility, impact resistance and clarity. LDPE is also low in trace metal content and is an ideal material for trace metal analysis.

Cat. No.312088	-0001	-0002	-0004	-0008	-0016	-0032™1
Nom. Cap., ml	30	60	125	250	500	1,000
Approx. Brim Cap., ml	38	64	143	289	555	1,090
Nom. Weight, g	8	9	16	26	40	78
No. per Case	1,000	1,000	500	250	125	50
Neck Finish	20-415	20-415	24-415	24-415	28-415	38-430
mm A	13	13	18	18	20	28
mm B	61	84	102	132	170	216
mm C	58	81	99	130	168	213
mm D	36	38	51	61	74	91

PPCO Packaging Bottles

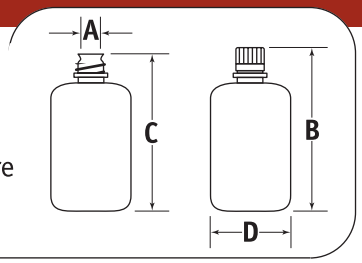
NALGENE Narrow-Mouth Packaging Bottles, natural polypropylene copolymer; polypropylene closures

Excellent chemical resistance in an autoclavable and leakproof container.

Cat. No.312087	-0001	-0002	-0004	-0008	-0016	-0032™1
Nom. Cap., ml	30	60	125	250	500	1,000
Approx. Brim Cap., ml	38	64	143	289	555	1,090
Nom. Weight, g	8	9	16	26	40	78
No. per Case	1,000	1,000	500	250	125	50
Neck Finish	20-415	20-415	24-415	24-415	28-415	38-430
mm A	13	13	18	18	20	28
mm B	61	84	102	132	170	216
mm C	58	81	99	130	168	213
mm D	36	38	51	61	74	91

PPCO Packaging Bottles | NVision Packaging Bottles

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



NALGENE Wide-Mouth Packaging Bottles, natural polypropylene copolymer; polypropylene closures

Excellent chemical resistance and autoclavable; wide mouth allows for easier filling.

Cat. No.312187	-0001	-0002	-0004	-0008	-0016	-0032
Nom. Cap., ml	30	60	125	250	500	1000
Approx. Brim Cap., ml	38	70	150	300	575	1,090
Nom. Weight, g	10	15	20	30	55	85
No. per Case	1,000	1,000	500	250	125	50
Neck Finish	28-415	28-415	38-415	43-415	53-415	63-415
mm A	21	21	28	33	43	51
mm B	62	86	99	131	168	199
mm C	60	83	97	127	164	194
mm D	34	38	51	62	73	91

NVision Packaging Bottles

NALGENE NVision™ Packaging Bottles, without Closures, natural polypropylene copolymer

Non-sterile NVision bottles combine chemical resistance with clarity to provide an excellent choice for packaging reagents, buffers and standards. Conventional and tamper-evident closure options are available*. Order non-sterile HDPE closures separately, Catalog Numbers 362141, 362142, 362143 and 362151. These bottles are not autoclavable.

Non-Sterile

Cat. No.362080	-0125	-0500	-1000	-2000
Nom. Cap., ml	125	500	1000	2000
Approx. Brim Cap., ml	160	580	1150	2300
Nom. Weight, g	20	45	84	133
No. per Case	200	150	50	24
Neck Finish	38-430	38-430	38-430	45-430
mm A	28.4	28.4	28.4	37.8
mm B	115.4	191.4	234.4	270
mm C	113	189	234.4	270
mm D	50.8	73.2	91.7	119.4

** Tamper evident closure not available for 2 liter bottle*

NALGENE NVision Packaging Bottles Closures, natural high-density polyethylene

Non-Sterile

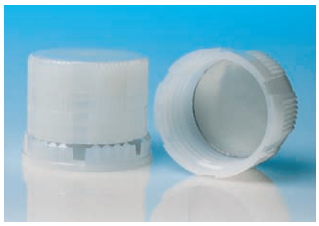
Cat. No.	Finish	Material	Closure/Seal Type	Nom. Weight, g	Height, mm	Diameter, mm	No. per Case
36-2141-0380*	38-430	HDPE	TE/Valve	10.3	37.6	46.2	200
36-2142-0380*	38-430	HDPE	TE/LDPE liner	10.4	37.6	46.2	200
36-2143-0380*	38-430	HDPE	TE/Ind. w/LDPE liner	10.4	37.6	46.2	200
36-2151-0380†	38-430	HDPE	Conventional/Valve	10	29.7	42.2	200
36-2151-0450†	45-430	HDPE	Conventional/Valve	11	27.9	49.8	120

**Closure Style - Tamper-evident*

†Closure Style - Conventional

TE = Tamper Evident

Tamper-evident closure, valve seal



Tamper-evident closure, LDPE liner and induction seal

NALGENE NVision Closures, natural high-density polyethylene

Sterile

Cat. No.	Finish	Material	Closure/Seal Type	Nom. Weight, g	Height, mm	Diameter, mm	No. per Case
34-2141-0380*	38-430	HDPE	TE/Valve	10.3	37.6	46.2	200
34-2142-0380*	38-430	HDPE	TE/LDPE liner	10.4	37.6	46.2	200
34-2143-0380*	38-430	HDPE	TE/Ind. w/LDPE liner	10.4	37.6	46.2	200
34-2151-0380†	38-430	HDPE	Conventional/Valve	10	29.7	42.2	200
34-2151-0450†	45-430	HDPE	Conventional/Valve	11	27.9	49.8	120

**Closure Style - Tamper-evident*

†Closure Style - Conventional

TE = Tamper Evident

Tamper-evident closure, LDPE liner

NALGENE NVision Packaging Bottles, without Closures, natural polypropylene copolymer

Sterile NVision bottles combine chemical resistance with clarity to provide an excellent choice for packaging reagents, buffers and standards. Several closure options are available, including a tamper evident closure*. Order Sterile Closures separately, Catalog Numbers 342141, 342142, 342143 and 342151. These bottles are not autoclavable.

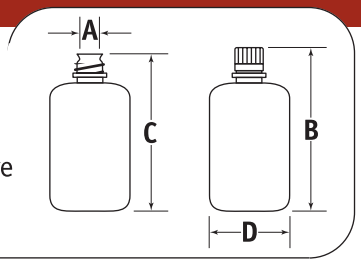
Sterile

Cat. No.342080	-0125	-0500	-1000	-2000
Nom. Cap., ml	125	500	1000	2000
Approx. Brim Cap., ml	160	580	1150	2300
Nom. Weight, g	20	45	84	133
No. per Case	200	150	50	24
Neck Finish	38-430	38-430	38-430	45-430
mm A	28.4	28.4	28.4	37.8
mm B	115.4	191.4	234.4	270
mm C	113	189	234.4	270
mm D	50.8	73.2	91.7	119.4

** Tamper evident closure not available for 2 liter size*

HDPE Lab Quality Bottles

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



HDPE Lab Quality Bottles

TM1Bottle neck design is protected by US Trademark Reg. No. 2857283

NALGENE Narrow-Mouth Boston Round Bottles, natural high-density polyethylene; natural polypropylene closures

All-purpose Boston round bottles are highly reliable and durable for long-term use. Ideal for packaging and shipping liquids. Excellent chemical resistance.

Cat. No.312002	-0001	-0002	-0004	-0006	-0008	-0016	-0032TM1	-9016TM1
Nom. Cap., ml	30	60	125	175	250	500	1,000	500
Approx. Brim Cap., ml	34	64	140	200	285	525	1,045	525
Nom. Weight, g	8	12	20	25	32	52	100	58
No. per Case	1,000	1,000	500	250	250	125	50	125
Neck Finish	20-415	20-415	24-415	24-415	24-415	28-415	38-430	38-430
mm A	13	13	18	18	18	21	27	27
mm B	61	84	102	124	133	170	216	170
mm C	58	83	99	123	130	168	211	168
mm D	34	38	51	53	61	74	91	74

NALGENE Narrow-Mouth Boston Round Bottles – Without Closures, natural high-density polyethylene

Order closures separately, Cat. No. 362150 series.

Cat. No.362002	-0001	-0002	-0004	-0008	-0016	-0032TM1
Nom. Cap., ml	30	60	125	250	500	1,000
Approx. Brim Cap., ml	34	65	140	285	525	1,040
Nom. Weight, g	8	12	20	32	52	100
No. per Case	1,000	1,000	500	250	125	50
Neck Finish	20-415	20-415	24-415	24-415	28-415	38-430
mm A	13	13	18	18	21	27
mm B	61*	84*	102*	133*	170*	216*
mm C	58	83	99	130	168	211
mm D	34	38	51	61	74	91

When measured with closure assembled.

NALGENE Narrow-Mouth IP2 Bottles, natural high-density polyethylene; polypropylene closure

Recommended for customers who are designing, assembling and certifying their own combination packaging. Bottles are evaluated at 15 psi (103 kPa) per 49 CFR 173.27 (c)(2), ICAO Technical Instructions Part 4; 1.1.6, and IATA Dangerous Goods Regulations Section 5.0.2.9.

Cat. No.312099	-0001	-0002	-0004	-0008	-0016	-0032™1
Nom. Cap., ml	30	60	125	250	500	1,000
Approx. Brim Cap., ml	35	64	140	285	525	1,045
Nom. Weight, g	8	12	20	32	52	100
No. per Case	1,000	1,000	500	250	125	50
Neck Finish	20-415	20-415	24-415	24-415	28-415	38-430
mm A	13	13	18	18	21	28
mm B	61	84	102	133	170	216
mm C	58	84	99	130	168	211
mm D	34	38	51	61	74	91

Cat. No.2099	-0010™1
Nom. Cap., ml	4,000
Approx. Brim Cap., ml	4,160
Nom. Weight, g	370
No. per Case	6
Neck Finish	38-430
mm A	28
mm B	333
mm C	330
mm D	153

NALGENE Rectangular Bottles, natural high-density polyethylene; natural polypropylene closure

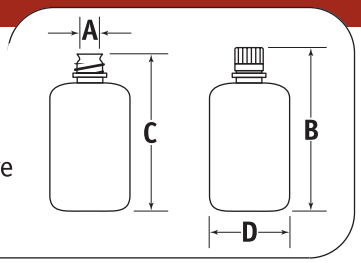
Space saving design.

Cat. No.312007	-0004	-0008	-0016	-0032
Nom. Cap., ml	125	250	500	1,000
Approx. Brim Cap., ml	150	300	560	1,180
Nom. Weight, g	26	44	60	120
No. per Case	500	250	125	50
Neck Finish	28-415	38-415	48-415	53-415
mm A	21	28	37	43
mm B	102	117	147	180
mm C	99	114	142	175
mm D	61 x 38	76 x 51	97 x 60	125 x 71

Cat. No.2007	-0064
Nom. Cap., ml	2,000
Approx. Brim Cap., ml	2,160
Nom. Weight, g	250
No. per Case	12
Neck Finish	63-415
mm A	51
mm B	242
mm C	238
mm D	152 x 84

HDPE Lab Quality Bottles

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



[TM1]Bottle neck design is protected by US Trademark Reg. No. 2857283

[TM2]Square Bottle with arched shoulders design is protected by US Trademark Reg. No. 2857279

NALGENE Graduated Square Bottles, natural high-density polyethylene; natural polypropylene closures

Same space-saving design and features as all NALGENE graduated square bottles.

Cat. No.312018	-0060	-0125[TM1 TM2]	-0250[TM1 TM2]	-0500[TM1 TM2]	-1000[TM1 TM2]
Nom. Cap., ml	60	125	250	500	1,000
Approx. Brim Cap., ml	80	180	330	620	1,225
Nom. Weight, g	14	40	50	75	120
No. per Case	1,000	250	250	125	50
Neck Finish	24-415	38-430	38-430	38-430	38-430
mm A	18	28	28	28	28
mm B	83	110	146	178	220
mm C	81	105	142	173	215
mm D	41	54	61	74	94

NALGENE Wide Mouth Square Bottles, natural high-density polyethylene; natural polypropylene closures

Square shape saves space; wide mouth is easy to fill. Excellent chemical resistance.

Cat. No.312114	-0002	-0006	-0008	-0016	-0032
Nom. Cap., ml	60	175	250	500	1,000
Approx. Brim Cap., ml	68	185	290	570	1,170
Nom. Weight, g	15	33	36	62	110
No. per Case	1,000	250	250	125	50
Neck Finish	28-415	38-415	43-415	53-415	63-415
mm A	21	28	33	44	53
mm B	83	106	116	146	181
mm C	80	103	111	141	176
mm D	37	52	62	75	94

NALGENE Wide-Mouth Bottles, natural high-density polyethylene; natural polypropylene closures

One of our most popular bottles. Wide mouth allows for easy filling of powders and liquids. Excellent chemical resistance.

Cat. No.312104	-0001	-0002	-0004	-0008	-0016	-0032
Nom. Cap., ml	30	60	125	250	500	1,000
Approx. Brim Cap., ml	38	70	150	290	550	1,100
Nom. Weight, g	12	15	25	36	62	110
No. per Case	1,000	1,000	500	250	125	50
Neck Finish	28-415	28-415	38-415	43-415	53-415	63-415
mm A	21	21	28	33	44	53
mm B	63	86	99	131	168	199
mm C	60	83	96	127	164	195
mm D	34	39	51	61	73	91

Cat. No.2104	-0048
Nom. Cap., ml	1500
Approx. Brim Cap., ml	1560
Nom. Weight, g	145
No. per Case	24
Neck Finish	63-415
mm A	53
mm B	284
mm C	278
mm D	91

NALGENE Wide-Mouth IP2 Bottles, natural high-density polyethylene; natural polypropylene closures

Recommended for customers who are designing, assembling and certifying their own combination packaging. Bottles are evaluated at 15 psi (103 kPa) per 49 CFR 173.27 (c)(2), ICAO Technical Instructions Part 4; 1.1.6, and IATA Dangerous Goods Regulations Section 5.0.2.9.

Cat. No.312199	-0004	-0008	-0016	-0032
Nom. Cap., ml	125	250	500	1,000
Approx. Brim Cap., ml	150	290	550	1,100
Nom. Weight, g	25	36	62	110
No. per Case	500	250	125	50
Neck Finish	38-415	43-415	53-415	63-415
mm A	28	33	44	53
mm B	99	131	168	199
mm C	96	127	164	195
mm D	50	61	73	91

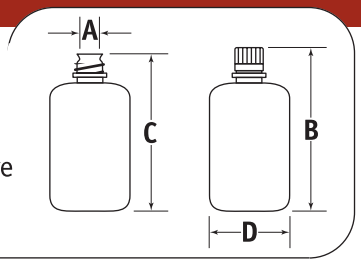
NALGENE Narrow-Mouth Boston Round Bottles, opaque amber high-density polyethylene; opaque amber polypropylene closures

These bottles meet the requirements of light-resistant containers per USP latest edition.

Cat. No.312004	-0001	-0002	-0004	-0008	-0016	-0032[TM1]
Nom. Cap., ml	30	60	125	250	500	1,000
Approx. Brim Cap., ml	34	64	140	285	525	1,045
Nom. Weight, g	8	12	20	32	52	100
No. per Case	1,000	1,000	500	250	125	50
Neck Finish	20-415	20-415	24-415	24-415	28-415	38-430
mm A	13	13	18	18	21	28
mm B	61	84	102	133	170	216
mm C	58	83	99	130	168	211
mm D	34	38	51	61	74	91

HDPE Lab Quality Bottles

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



Product Packaging Information

Lab pack bottles – closures assembled
"31" Bulk pack bottles – closures included but not assembled
"32" Shrink-wrap module packaging
"33" Bulk pack with closures assembled to the bottles
"34" Sterile product
"36" Bottles and closures are bulk packed in separate cartons and must be ordered separately
"38" Low-particulate bottles – closures assembled
See "Closures for Bulk Packed Bottles" at the end of the Packaging Section

NALGENE Wide-Mouth Bottles, opaque amber high-density polyethylene; opaque amber polypropylene closures

These bottles meet the requirements of light-resistant containers per USP latest edition.

Cat. No.312106	-0001	-0002	-0004	-0008	-0016	-0032
Nom. Cap., ml	30	60	125	250	500	1,000
Approx. Brim Cap., ml	38	70	150	290	550	1,100
Nom. Weight, g	12	15	25	36	62	110
No. per Case	1,000	1,000	500	250	125	50
Neck Finish	28-415	28-415	38-415	43-415	53-415	63-415
mm A	21	21	28	33	44	53
mm B	63	86	99	131	168	199
mm C	60	83	96	127	164	195
mm D	34	39	50	61	73	91

NALGENE Rectangular Bottles, opaque Amber high-density polyethylene; opaque Amber polypropylene closures

These bottles meet the requirements of light-resistant containers per USP latest edition.

Cat. No.312009	-0004	-0008	-0016	-0032
Nom. Cap., ml	125	250	500	1,000
Approx. Brim Cap., ml	150	300	560	1,180
Nom. Weight, g	26	44	60	120
No. per Case	500	250	125	50
Neck Finish	28-415	38-415	48-415	53-415
mm A	21	28	37	43
mm B	102	117	147	180
mm C	99	114	142	175
mm D	61 x 38	76 x 51	97 x 60	125 x 71

Cat. No.2009	-0064
Nom. Cap., ml	2000
Approx. Brim Cap., ml	2200
Nom. Weight, g	235
No. per Case	12
Neck Finish	63-415
mm A	53
mm B	239
mm C	234
mm D	152 x 81

NALGENE Narrow-Mouth Boston Round Bottles – Without Closures, opaque white high-density polyethylene

These bottles meet the requirements of light-resistant containers per USP latest edition. Order closures separately, Cat. No. 362150 series.

Cat. No.362008	-0001	-0002	-0004	-0008	-0016	-0032
Nom. Cap., ml	30	60	125	250	500	1,000
Approx. Brim Cap., ml	34	64	140	285	525	1,045
Nom. Weight, g	8	12	20	32	52	100
No. per Case	1,000	1,000	500	250	125	50
Neck Finish	20-415	20-415	24-415	24-415	28-415	38-430
mm A	13	13	18	18	20	28
mm B	61*	84*	102*	132*	170*	216*
mm C	58	81	99	130	168	211
mm D	34	38	51	61	74	91

**When measured with closure.*

Fluorinated Lab Quality Bottles

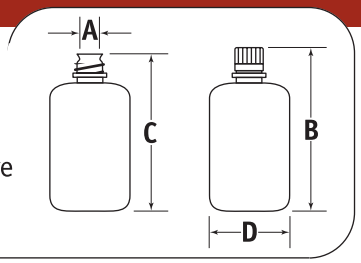
TM1Bottle neck design is protected by US Trademark Reg. No. 2857283

NALGENE Fluorinated Bottles, fluorinated polyethylene; fluorinated polypropylene closures
These fluorinated containers resist permeation, paneling, odor emission, flavor and fragrance loss. They are effective for packaging some solvents, oils, chemicals and agricultural products.

Cat. No.312097	-0004	-0008	-0016	-0032TM1
Nom. Cap., ml	125	250	500	1,000
Approx. Brim Cap., ml	140	285	525	1,045
Nom. Weight, g	20	32	52	100
No. per Case	500	250	125	50
Neck Finish	24-415	24-415	28-415	38-430
mm A	18	18	20	28
mm B	102	132	170	216
mm C	99	130	168	213
mm D	51	61	74	91

Low Particulate Lab Quality Bottles

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



Low Particulate Lab Quality Bottles

TM1Bottle neck design is protected by US Trademark Reg. No. 2857283

NALGENE Low-Particulate Bottles, natural high-density polyethylene; natural polypropylene closures

Ideal packaging/shipping containers for microelectronic reagents and biotech/pharmaceutical applications. Controlled-environment manufacturing minimizes solution contamination. Bottles average less than 30 particles per ml at 0.3 microns and greater. Leakproof to 15 psi. Certified with quality assurance and regulatory compliance; certificate of quality included with each case.

Cat. No.382099	-0125	-0250	-0500	-1000TM1
Nom. Cap., ml	125	250	500	1000
Approx. Brim Cap., ml	140	285	525	1,045
Nom. Weight, g	20	32	52	100
No. per Case	72	72	48	24
Neck Finish	24-415	24-415	28-415	38-430
mm A	18	18	21	28
mm B	101	133	170	216
mm C	99	130	168	212
mm D	50	61	73	91

NALGENE Low Particulate/Low Metals Bottles, Teflon* fluorinated ethylene propylene; Tefzel* ethylene-tetrafluoroethylene screw closures

Narrow-mouth bottles with a particle level of less than 20 particles per ml at 0.3µm and greater. Metals certified to (µg/L) ppb levels <0.20 Hg, <0.5 Be, <1.0 As, Cd, Pb, <2.0 Sb, Se, <5.0 Ag, Co, Cr, Cu, Mn, Th, V, <10 Ba, Ni, Zn, <50 Mg, <75 Al, <100 Ca, Fe, K, Na. Each bottle is double bagged under Class 10 laminar flow hoods inside a Class 100 clean room. Excellent for storing high-purity chemicals. Product includes a certificate of quality that assures the product has been tested and accepted in accordance with specifications. Non-sterile.

Cat. No.381600	-0004	-0008	-0016	-0032TM1
Nom. Cap., ml	125	250	500	1000
No. per Case	6	4	4	4
Neck Finish	24-415	24-415	28-415	38-415
mm A	18	18	20	26
mm B	114	134	165	202
mm C	111	132	162	198
mm D	46	61	73	90

NALGENE Low Particulate/Low Metals Bottles, natural low density polyethyelene, natural polypropylene closures

Narrow-mouth bottles with a particle level of less than 20 particles per ml at 0.3µm and greater. Metals certified to (µg/L) ppb levels <0.20 Hg, <0.5 Be, <1.0 As, Cd, Pb, <2.0 Sb, Se, <5.0 Ag, Co, Cr, Cu, Mn, Th, V, <10 Ba, Ni, Zn, <50 Mg, <75 Al, <100 Ca, Fe, K, Na. Each bottle is double bagged under Class 10 laminar flow hoods inside a Class 100 clean room. Excellent for ICP-MS reagent and standard storage. Product includes a certificate of quality that assures the product has been tested and accepted in accordance with specifications. Non-sterile.

Cat. No.382003	-0004	-0008	-0016	-0032[TM1]
Nom. Cap., ml	125	250	500	1,000
No. per Case	72	72	48	24
Neck Finish	24-415	24-415	28-415	38-430
mm A	18	18	21	27
mm B	102	133	170	216
mm C	99	130	168	211
mm D	51	61	74	91

LDPE Lab Quality Bottles

NALGENE Narrow-Mouth Boston Round Bottles, natural low-density polyethylene; natural polypropylene closures

These translucent bottles offer durability and clarity. LDPE is low in trace metal content and is ideal for trace metal analysis.

Cat. No.312003	-0001	-0002	-0004	-0008	-0016	-0032[TM1]
Nom. Cap., ml	30	60	125	250	500	1,000
Approx. Brim Cap., ml	34	64	140	285	525	1,045
Nom. Weight, g	8	12	20	32	52	100
No. per Case	1,000	1,000	500	250	125	50
Neck Finish	20-415	20-415	24-415	24-415	28-415	38-430
mm A	13	13	18	18	21	27
mm B	61	84	102	133	170	216
mm C	58	83	99	130	168	211
mm D	34	38	51	61	74	91

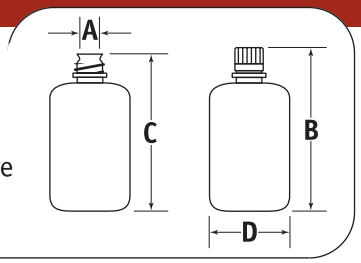
NALGENE Wide-Mouth Bottles, natural low-density polyethylene; natural polypropylene closures

These translucent bottles offer durability, clarity and chemical resistance. LDPE is low in trace metal content and is ideal for trace metal analysis. The wide mouth allows for easy filling.

Cat. No.312103	-0001	-0002	-0004	-0008	-0016	-0032
Nom. Cap., ml	30	60	125	250	500	1,000
Approx. Brim Cap., ml	38	70	150	290	550	1,100
Nom. Weight, g	12	15	25	36	62	110
No. per Case	1,000	1,000	500	250	125	50
Neck Finish	28-415	28-415	38-415	43-415	53-415	63-415
mm A	21	21	28	33	44	53
mm B	63	86	99	131	168	199
mm C	60	83	96	127	164	195
mm D	34	39	51	61	73	91

PP Lab Quality Bottles

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



PP Lab Quality Bottles

TM1Bottle neck design is protected by US Trademark Reg. No. 2857283

NALGENE Narrow-Mouth Boston Round Bottles, natural polypropylene copolymer; polypropylene closures

Translucent bottles offer chemical resistance and autoclavability.

Cat. No.312006	-0001	-0002	-0004	-0008	-0016	-0032TM1
Nom. Cap., ml	30	60	125	250	500	1,000
Approx. Brim Cap., ml	34	64	140	285	525	1,045
Nom. Weight, g	8	12	20	32	52	100
No. per Case	1,000	1,000	500	250	125	50
Neck Finish	20-415	20-415	24-415	24-415	28-415	38-430
mm A	13	13	18	18	21	28
mm B	61	84	102	133	170	216
mm C	58	83	99	1301	168	211
mm D	34	38	51	61	74	91

TM2Square Bottle with arched shoulders design is protected by US Trademark Reg. No. 2857279

NALGENE Graduated Square Bottles, natural polypropylene copolymer; polypropylene closures

Space-saving square design. Translucent autoclavable PP bottles offer very good chemical resistance. Molded-in graduations for easy measuring and drip-proof neck finish for convenient dispensing.

Cat. No.312016	-0030	-0060	-0125TM1 TM2	-0250TM1 TM2	-0500TM1 TM2	-1000TM1 TM2
Nom. Cap., ml	30	60	125	250	500	1,000
Approx. Brim Cap., ml	45	80	180	330	620	1,230
Nom. Weight, g	10	14	40	50	75	120
No. per Case	1,000	1,000	250	250	125	50
Neck Finish	20-415	24-415	38-430	38-430	38-430	38-430
mm A	14	18	28	28	28	28
mm B	63	83	110	146	178	220
mm C	61	81	105	142	173	215
mm D	38	41	54	61	74	94

NALGENE Wide-Mouth Bottles, natural polypropylene copolymer; polypropylene closures

Translucent bottle offers better clarity than HDPE. Wide mouth allows for easy filling. Autoclavable

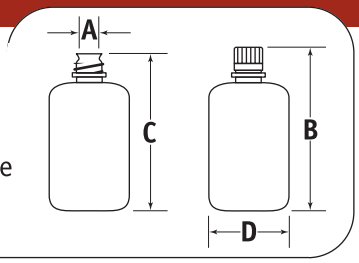
Cat. No.312105	-0001	-0002	-0004	-0008	-0016	-0032
Nom. Cap., ml	30	60	125	250	500	1,000
Approx. Brim Cap., ml	38	70	150	290	550	1,100
Nom. Weight, g	12	15	25	36	62	110
No. per Case	1,000	1,000	500	250	125	50
Neck Finish	28-415	28-415	38-415	43-415	53-415	63-415
mm A	21	21	28	33	44	53
mm B	63	86	99	131	168	199
mm C	60	83	96	127	164	195
mm D	34	39	51	61	73	91

NALGENE Wide-Mouth Square Bottles, natural polypropylene copolymer; polypropylene closures

Autoclavable version of space-saving Cat. No. 312114. Wide mouth for easy filling and pouring. Square shape saves space and offers large labeling surface.

Cat. No.312110	-0006	-0008	-0016	-0032
Nom. Cap., ml	175	250	500	1,000
Approx. Brim Cap., ml	185	290	570	1,170
Nom. Weight, g	33	36	62	110
No. per Case	250	250	125	50
Neck Finish	38-415	43-415	53-415	63-415
mm A	28	33	44	53
mm B	106	111	146	181
mm C	103	111	141	176
mm D	52	62	75	94

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



PC Lab Quality Bottles

TM1 Bottle neck design is protected by US Trademark Reg. No. 2857283

TM2 Square Bottle with arched shoulders design is protected by US Trademark Reg. No. 2857279

NALGENE Graduated Square Bottles, polycarbonate; polypropylene closures

Easy-to-handle square design. Tough, durable even at low temperatures. These bottles are not bulk-packaged. Autoclavable.

Cat. No.2015	-0030	-0060	-0125 TM1 TM2	-0250 TM1 TM2	-0500 TM1 TM2	-1000 TM1 TM2	-2000 TM1 TM2
Nom. Cap., ml	30	60	125	250	500	1,000	2,000
Approx. Brim Cap., ml	45	80	180	330	620	1,225	2,380
Nom. Weight, g	10	14	40	51	75	120	350
No. per Case	96	96	48	48	24	24	6
Neck Finish	20-415	24-415	38-430	38-430	38-430	38-430	53B
mm A	14	18	28	28	28	28	38
mm B	63	83	110	146	178	220	272
mm C	61	81	105	142	173	215	264
mm D	38	41	54	61	74	94	117

Tray Packed without Closures, polycarbonate

Order closures separately, Cat. No. 362000 Series.

Cat. No.362015	-0125 TM1 TM2	-0250 TM1 TM2	-0500 TM1 TM2	-1000 TM1 TM2
Nom. Cap., ml	125	250	500	1,000
Approx. Brim Cap., ml	180	330	620	1,225
Nom. Weight, g	40*	51*	75*	120*
No. per Case	96	60	40	24
Neck Finish	38-430	38-430	38-430	38-430
mm A	28	28	28	28
mm B	110	146	178	220
mm C	105	142	173	215
mm D	54	61	74	94

**without closures*

Teflon Lab Bottles

NALGENE Narrow-Mouth Bottles, Teflon* fluorinated ethylene propylene; Tefzel* ethylene-tetrafluoroethylene closures

Extremely chemical- and corrosion-resistant – can be cleaned in boiling nitric acid for high-purity packaging. These bottles are not bulk-packaged. NOTE: Before autoclaving, just set cap or closure on top of the container without engaging the threads.

Cat. No.1600	-0001	-0002	-0004	-0008	-0016	-0032TM1	-0064TM1
Nom. Cap., ml	30	60	125	250	500	1,000	2,000
Approx. Brim Cap., ml	35	70	140	280	520	1,040	2,200
Nom. Weight, g	20	22	40	60	100	160	340
No. per Case	8	8	6	4	4	4	2
Neck Finish	20-415	20-415	24-415	24-415	28-415	38-415	38-430
mm A	14	14	18	18	20	26	24
mm B	74	84	114	134	165	202	245
mm C	72	82	111	132	162	198	234
mm D	31	39	46	61	73	90	120

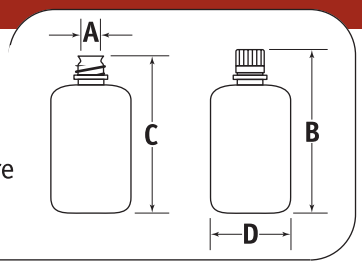
NALGENE Wide-Mouth Bottles, Teflon* fluorinated ethylene propylene; Tefzel* ethylene-tetrafluoroethylene screw closures

The extraordinary chemical and temperature resistance of Teflon FEP, with the convenience of a wide mouth. These virtually clear, autoclavable bottles are ideal for high- or low-temperature work, trace metal analysis and applications with organic solvents. Bottles with closure withstand temperatures from -105°C to +150°C. Packaged individually. NOTE: Before autoclaving, just set cap or closure on top of the container without engaging the threads.

Cat. No.2100	-0004	-0008	-0016	-0032	-0064
Nom. Cap., ml	125	250	500	1,000	2,000
Approx. Brim Cap., ml	145	260	520	1,060	2,050
Nom. Weight, g	42	68	105	180	310
No. per Case	6	4	4	4	2
Neck Finish	33-415	43-415	48-415	53-415	53-415
mm A	25	33	38	42	42
mm B	117	128	165	208	232
mm C	112	122	158	201	228
mm D	46	58	71	91	119

**Teflon and Tefzel are registered trademarks of DuPont.*

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



NALGENE Narrow-Mouth Bottles, perfluoroalkoxy; perfluoroalkoxy closures

The most chemical- and corrosion-resistant containers available. Bottles 125-ml and larger have a 38-430 acid drip-proof neck finish. These bottles are not bulk-packaged. NOTE: Before autoclaving, just set cap or closure on top of the container without engaging the threads.

Cat. No.DS1630	-0001	-0002
Nom. Cap., ml	30	60
Approx. Brim Cap., ml	35	70
Nom. Weight, g	20	25
No. per Case	8	8
Neck Finish	20-415	20-415
mm A	13	15
mm B	74	86
mm C	71	83
mm D	31	38

Cat. No.1630	-0004™1	-0008™1	-0016™1	-0032™1
Nom. Cap., ml	125	250	500	1,000
Approx. Brim Cap., ml	150	280	520	1,040
Nom. Weight, g	60	85	125	180
No. per Case	6	4	4	4
Neck Finish	38-430	38-430	38-430	38-430
mm A	25	25	25	25
mm B	127	145	181	216
mm C	126	140	176	211
mm D	43	59	71	92

Jars

NALGENE Transparent Straight-Side Jars, polycarbonate; polypropylene closures

High strength even at sub-freezing temperatures. Autoclavable.

Cat. No.2116	-0015	-0030	-0060	-0125	-0250	-0500	-1000
Nom. Cap., ml	15	30	60	125	250	500	1,000
Approx. Brim Cap., ml	16	32	60	180	310	670	1,230
Nom. Weight, g	14	20	26	50	65	130	180
No. per Case	48	48	48	24	24	16	16
Neck Finish	38	43	53	70	70	120	120
mm A	29	33	44	64	64	112	112
mm B	46	47	48	74	118	88	151
mm C	43	42	43	65	109	76	137
mm D	30	36	47	64	64	112	112

NALGENE Straight-Side Jars, natural polypropylene; polypropylene closures

Autoclavable. These straight-sided jars are not bulk-packaged.

Cat. No.2118	-0001	-0002	-0004	-0008	-0016	-0032	-9050
Nom. Cap., ml	30	60	125	250	500	1,000	15
Approx. Brim Cap., ml	32	60	180	310	670	1,230	16
Nom. Weight, g	20	26	50	65	130	180	14
No. per Case	72	48	36	36	24	24	72
Neck Finish	43	53	70	70	120	120	38
mm A	33	44	64	64	112	112	29
mm B	46	48	74	118	88	151	46
mm C	42	43	65	109	76	137	43
mm D	36	47	64	64	112	112	30

Wash Bottles

NALGENE Economy Wash Bottles, natural low-density polyethylene; polypropylene closures/stems, polypropylene copolymer draw tubes

Cat. No.2401	-0125	-0250	-0500	-1000
Nom. Cap., ml	125	250	500	1,000
Approx. Brim Cap., ml	140	285	560	1,040
Nom. Weight, g	20	30	46	100
No. per Case	48	36	24	12
Finish	24-415	24-415	28-415	38-430
mm A	18	18	21	27
mm B	147	175	213	259
mm C	99	129	167	213
mm D	51	61	74	91

Dropping Bottles

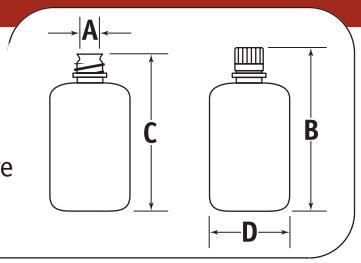
NALGENE Drop-Dispenser Bottles, natural low-density polyethylene; polypropylene dropping closures and tethered caps

Dispenses one drop at a time with one-hand operation.

Cat. No.2411	-0015	-0030	-0060	-0125	-0250
Nom. Cap., ml	15	30	60	125	250
Approx. Brim Cap., ml	18	35	65	140	285
Nom. Weight, g	8	10	12	17	28
No. per Case	72	72	48	48	36
Neck Finish	20-415	20-415	20-415	24-415	24-415
mm A	12	12	12	18	18
mm B	94	99	99	114	119
mm C	55	58	79	93	129
mm D	25	33	38	50	61

Closures for Bulk Packed Bottles

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



Closures for Bulk Packed Bottles

NALGENE Colored Closures, polypropylene

Easy-to-identify NALGENE colored closures reduce the chance for cross contamination and when used as a system with NALGENE narrow-mouth bottles guarantee leakproof performance. Available in white, blue, red, green, amber, plus natural. These opaque closures protect contents from UV light when used with opaque NALGENE Bottles, Cat. No. 362008. Closures are one-piece and linerless with integrally-molded seal ring to ensure leakproof performance. Closures meet FDA CFR21 177.1520 for food & beverage use. All raw materials used in their production meet CONEG regulations for heavy metal content.

Closures fit NALGENE narrow-mouth HDPE bottles up to 1000-ml, Cat. Nos. 362002, 362008 362085 and 362089 Series. A well-defined closure knurl makes gripping and capping easy.

Finish: 13-415

Cat. No.362150	-0130	-1130	-4130	-5130	-6130	-7130
Color	Natural	White	Green	Red	Blue	Amber
Nom. Weight, g	0.6	0.6	0.6	0.6	0.6	0.6
No. per Case	2,000	2,000	2,000	2,000	2,000	2,000
Height, mm	8	8	8	8	8	8
Diameter, mm	16	16	16	16	16	16

NALGENE Colored Closures, polypropylene

Finish: 20-415

Cat. No.362150	-0200	-1200	-4200	-5200	-6200	-7200
Color	Natural	White	Green	Red	Blue	Amber
Nom. Weight, g	2.0	2.0	2.0	2.0	2.0	2.0
No. per Case	2,000	2,000	2,000	2,000	2,000	2,000
Height, mm	12	12	12	12	12	12
Diameter, mm	22	22	22	22	22	22

NALGENE Colored Closures, polypropylene

Finish: 24-415

Cat. No.362150	-0240	-1240	-4240	-5240	-6240	-7240
Color	Natural	White	Green	Red	Blue	Amber
Nom. Weight, g	2.5	2.5	2.5	2.5	2.5	2.5
No. per Case	1,000	1,000	1,000	1,000	1,000	1,000
Height, mm	15	15	15	15	15	15
Diameter, mm	27	27	27	27	27	27

NALGENE Colored Closures, polypropylene

Finish: 28-415

Cat. No.362150	-0280	-1280	-4280	-5280	-6280	-7280
Color	Natural	White	Green	Red	Blue	Amber
Nom. Weight, g	3.0	3.0	3.0	3.0	3.0	3.0
No. per Case	500	500	500	500	500	500
Height, mm	15	15	15	15	15	15
Diameter, mm	30	30	30	30	30	30

NALGENE Colored Closures, polypropylene

Finish: 38-430

Cat. No.362150	-0384	-1384	-4384	-5384	-6384	-7384
Color	Natural	White	Green	Red	Blue	Amber
Nom. Weight, g	10.0	10.0	10.0	10.0	10.0	10.0
No. per Case	250	250	250	250	250	250
Height, mm	27	27	27	27	27	27
Diameter, mm	41	41	41	41	41	41

Packaging Bags

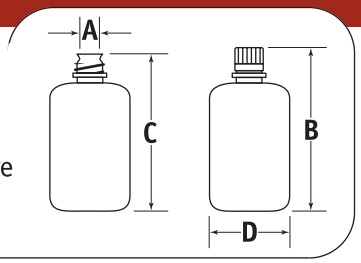
NALGENE Wide-Mouth Packaging Bags, ultra linear low density polyethylene / nylon film; white polypropylene closures

These flexible wide-mouth bags are the next generation of packaging containers. Their compact, durable, lightweight design makes them an ideal container for storage or shipment of solids and liquids. Wide (63mm) mouth makes bags easy to fill and pour. Leakproof NALGENE White PP closure securely seals onto HDPE fitment threads. Bag material is strong, impact-resistant, and complies with FDA food-grade regulations for food and beverage use. Bag material also complies with USP Class VI and Non-cytotoxic standards. Bottom design lets bag stand upright when filled. Transparent with excellent contact clarity. For carrying ease, the 3-L bag has a reinforced nylon grommet. Film withstands freezing and boiling temperatures.

Non-Sterile

Cat. No.332900	-0500	-1000	-1500	-3000
Nom. Cap., L	0.5	1	1.5	3
Nom. Cap., gal.	0.13	0.26	0.39	0.79
No. per Case	24	24	24	24

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



NALGENE Sterile Wide-Mouth Packaging Bags, ultra linear low density polyethylene / nylon film; white polypropylene closures

These flexible wide-mouth bags are the next generation of packaging containers. Their compact, durable, lightweight design makes them an ideal container for storage or shipment of solids and liquids. Wide (63mm) mouth makes bags easy to fill and pour. Leakproof NALGENE White PP closure securely seals onto HDPE fitment threads. Bag material is strong, impact-resistant, and complies with FDA food-grade regulations for food and beverage use. Bag material also complies with USP Class VI and Non-cytotoxic standards. Bottom design lets bag stand upright when filled. Transparent with excellent contact clarity. For carrying ease, the 3-L bag has a reinforced nylon grommet. Film withstands freezing and boiling temperatures. Gamma Irradiated to 10^{-6} SAL.

Sterile

Cat. No.342900	-0500	-1000	-1500	-3000
Nom. Cap., L	0.5	1	1.5	3
Nom. Cap., gal.	0.13	0.26	0.39	0.79
No. per Case	24	24	24	24

PET/PETG Square Media Bottles

NALGENE PETG Square Media Bottles with Closure, Non-sterile, polyethylene terephthalate copolyester, glycol modified, natural high-density polyethylene closures

NALGENE PETG square media bottles are specifically designed for packaging and shipping liquid medias, buffers and sera. These heavy-walled, durable, square PETG bottles save space, are shatter-resistant and provide excellent gas barrier properties. These non-pyrogenic bottles save you time from costly cleaning preps that are necessary with similar glass products.

Bottles feature molded-in graduations, drip-proof neck finish for aseptic techniques, and molded-in neck ring. Products are shrink-wrapped into trays, then packed in double PE lined cartons for critical environment use. PETG media bottles are offered with and without closure.

PETG media bottles meet current biological and pharmaceutical regulatory standards such as: USP Class VI, non-cytotoxic, non-pyrogenic, USP <661>, European Pharmacopeia for Abnormal toxicity (modified), and are made from ADCF (Animal Derived Component Free) materials. PETG media bottles are suitable for air shipment and are tested during each manufacturing run to ensure leakproof performance.

Non-Sterile

Cat. No.322020	-0030	-0060	-0125	-0250	-0500	-9500	-1000	-2000
Nom. Cap., ml	30	60	125	250	500	500	1,000	2,000
Approx. Brim Cap., ml	45	80	180	320	620	658	1,230	2,380
Nom. Weight, g	13.5	22	52	65	116	116	187	350
No. in Shrink-Wrap Tray	40	40	24	30	20	24	12	6
No. per Case	280	200	96	60	40	48	24	12
Neck Finish	20-415	24-415	38-430	38-430	38-430	38-430	38-430	53B
mm A	14	18	28	28	28	28	28	39
mm B	64	84	109	145	178	178	218	271
mm C	61	81	107	140	173	173	216	264
mm D	38	41	53	59	74	75	92	117

NALGENE Amber PETG Square Media Bottles with Closure, Non-sterile,
translucent amber polyethylene terephthalate copolyester; opaque amber high-density polyethylene closures

These translucent amber bottles meet the requirements of light-resistant containers in accordance with current edition of USP* and are specifically designed for packaging and shipping liquid medias, buffers and sera. These heavy-walled, durable, square PETG bottles save space, are shatter-resistant and provide excellent gas barrier properties.

Bottles feature molded-in graduations, drip-proof neck finish for aseptic techniques, and molded-in neck ring. Products are shrink-wrapped into trays, then packed in double PE lined cartons for critical environment use.

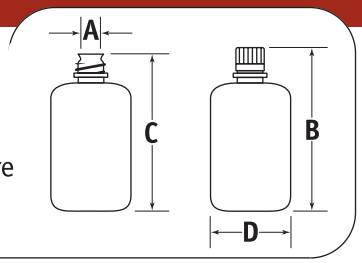
PETG media bottles meet current biological and pharmaceutical regulatory standards including: USP Class VI, non-cytotoxic, USP <661>, European Pharmacopeia for Abnormal toxicity (modified). PETG media bottles are suitable for air shipment and are tested during each manufacturing run to ensure leakproof performance.

Non-Sterile

Cat. No.322021	-0030	-0060	-0125
Nom. Cap., ml	30	60	125
Approx. Brim Cap., ml	45	80	180
Nom. Weight, g	13.5	22	52
No. in Shrink-Wrap Tray	40	40	24
No. per Case	280	200	96
Neck Finish	20-415	24-415	38-430
mm A	14	18	28
mm B	64	84	109
mm C	61	81	107
mm D	38	41	53

PET/PETG Square Media Bottles

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



NALGENE PETG Square Media Bottles with Closures, Sterile, polyethylene terephthalate copolyester, natural high-density polyethylene closures

NALGENE PETG square media bottles are specifically designed for packaging and shipping liquid medias, buffers and sera. These heavy-walled, durable, square PETG bottles save space, are shatter-resistant and provide excellent gas barrier properties. These sterile, non-pyrogenic bottles save you time from costly cleaning preps that are necessary with similar glass products.

Bottles feature molded-in graduations, drip-proof neck finish for aseptic techniques, and molded-in neck ring. Products are shrink-wrapped into trays, then packed in double PE lined cartons for critical environment use. PETG media bottles are offered with and without closure.

PETG media bottles meet current biological and pharmaceutical regulatory standards such as: USP Class VI, non-cytotoxic, non-pyrogenic, USP <661>, European Pharmacopeia for Abnormal toxicity (modified), and are made from ADCF (Animal Derived Component Free) materials. PETG media bottles are suitable for air shipment and are tested during each manufacturing run to ensure leakproof performance. Gamma irradiated to 10^{-6} Sterility Assurance Level (SAL).

Sterile

Cat. No.342020	-0030	-0060	-0125	-0250	-0500	-9500	-1000	-2000
Nom. Cap., ml	30	60	125	250	500	500	1,000	2,000
Approx. Brim Cap., ml	45	80	180	320	620	658	1,230	2,380
Nom. Weight, g	13.5	22	52	65	116	116	187	350
No. in Shrink-Wrap Tray	40	40	24	30	20	24	12	6
No. per Case	280	200	96	60	40	48	24	12
Neck Finish	20-415	24-415	38-430	38-430	38-430	38-430	38-430	53B
mm A	14	18	28	28	28	28	28	39
mm B	64	84	109	145	178	178	218	271
mm C	61	81	107	140	173	173	216	264
mm D	38	41	53	59	74	75	92	117

NALGENE PETG Square Media Bottles without Closure, Sterile, polyethylene terephthalate copolyester

Closures sold separately, Cat. Nos. 342151-xxxx and 342178-xxxx.

NALGENE PETG square media bottles are specifically designed for packaging and shipping liquid medias, buffers and sera. These heavy-walled, durable, square PETG bottles save space, are shatter-resistant and provide excellent gas barrier properties. These sterile, non-pyrogenic bottles save you time from costly cleaning preps that are necessary with similar glass products.

Bottles feature molded-in graduations, drip-proof neck finish for aseptic techniques, and molded-in neck ring. Products are shrink-wrapped into trays, then packed in double PE lined cartons for critical environment use. PETG media bottles are offered with and without closure.

PETG media bottles meet current biological and pharmaceutical regulatory standards such as: USP Class VI, non-cytotoxic, non-pyrogenic, USP <661>, European Pharmacopeia for Abnormal toxicity (modified), and are made from ADCF (Animal Derived Component Free) materials. PETG media bottles are suitable for air shipment and are tested during each manufacturing run to ensure leakproof performance. Gamma irradiated to 10^{-6} Sterility Assurance Level (SAL).

Sterile

Cat. No.342024	-0030	-0060	-0125	-0250	-0500	-9500	-1000
Nom. Cap., ml	30	60	125	250	500	500	1,000
Approx. Brim Cap., ml	45	80	180	320	620	658	1,230
Nom. Weight, g	13.5	22	52	65	116	116	187
No. in Shrink-Wrap Tray	40	40	24	30	20	24	12
No. per Case	280	200	96	60	40	48	24
Neck Finish	20-415	24-415	38-430	38-430	38-430	38-430	38-430
mm A	14	18	28	28	28	28	28
mm B	64*	84*	109*	145*	178*	178*	218*
mm C	61	81	107	140	173	173	216
mm D	38	41	53	59	74	75	92

**When measured with closure on bottle.*

NALGENE Square Media Bottles with Septum Closure, Sterile, polyethylene terephthalate copolyester, high-density polyethylene closures, Silicone/PTFE Septum

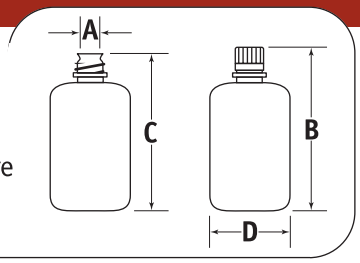
For packaging of biological and diagnostic reagents that require aseptic dispensing or addition of supplements by syringe. PETG Bottles with Septum Closure are leakproof, sterile, and offered in various sizes. The Silicone/PTFE Septum provides a PTFE fluid contact surface that is an inert, non-stick sealing surface to ensure fluid integrity. Gamma irradiated to 10^{-6} Sterility Assurance Level (SAL).

Sterile

Cat. No.342023	-0060	-0125	-0500	-9500	-1000
Nom. Cap., ml	60	125	500	500	1000
Approx. Brim Cap., ml	80	180	620	658	1230
Nom. Weight, g	22	52.5	116	116	187
No. in Module	40	24	20	24	12
No. per Case	200	96	48	48	24
Finish	24-415	38-430	38-430	38-430	38-430
mm A	18	28	28	28	28
mm B	84	109	178	178	218
mm C	81	107	173	173	216
mm D	41	53	74	75	92

PET/PETG Square Media Bottles

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



NALGENE PET Square Media Bottles with Closure, Sterile, polyethylene terephthalate; natural high-density polyethylene closure

NALGENE PET Square Media Bottles with closure are lightweight, shatter-resistant, and provide excellent gas barrier properties for storage and shipping of liquid media, buffers, and sera. They feature molded-in graduations and neck ring for use with tamper evident shrink sleeves. Products are packaged in shrink-wrap tray modules inside a controlled environment manufacturing area. Tray modules are double polybagged inside the master carton for critical environment use. Gamma irradiated to 10^{-6} Sterility Assurance Level (SAL) to save you time and costly cleaning preps associated with similar glass products. PET Media Bottles and HDPE closure materials meet current biological testing standards including USP Class VI, UPS <661>, European Pharmacopeia for Abnormal Toxicity (modified), non-cytotoxicity, non-hemolytic and non-pyrogenic. Assembled bottles are tested during each manufacturing run to ensure leakproof performance. Suitable for air shipment. Made from ADCF (Animal Derived Component Free) materials.

Sterile

Cat. No.342040	-0125	-0250	-0650	-1000
Nom. Cap., ml	125	250	500	1000
Approx. Brim Cap., ml	184	339	700	1330
Nom. Weight, g	40	52	79	102
No. per Case	40	60	48	24
Finish	38-430	38-430	38-430	38-430
mm A	28	28	28	28
mm B	108	144	177	218
mm C	104	140	173	213
mm D	52	59	76	92

NALGENE PET Square Media Bottles without Closure, Sterile, polyethylene terephthalate

NALGENE PET Square Media Bottles are lightweight, shatter-resistant, and provide excellent gas barrier properties for storage and shipping of liquid media, buffers, and sera. They feature molded-in graduations and neck ring for use with tamper evident shrink sleeves. Products are packaged in shrink-wrap tray modules inside a controlled environment manufacturing area. Tray modules are double polybagged inside the master carton for critical environment use. Gamma irradiated to 10^{-6} Sterility Assurance Level (SAL). PET Media Bottles meet current biological testing standards including USP Class VI, USP <661>, European Pharmacopeia for Abnormal Toxicity (modified), non-cytotoxicity, non-hemolytic and non-pyrogenic. Assembled bottles are tested during each manufacturing run to ensure leakproof performance. Suitable for air shipment. Closure 342151-0384 sold separately. Made from ADCF (Animal Derived Component Free) materials.

Sterile

Cat. No.342044	-0125	-0250	-0650	-1000
Nom. Cap., ml	125	250	500	1000
Approx. Brim Cap., ml	184	339	700	1330
Nom. Weight, g	30	42	70	93
No. per Case	40	60	48	24
Neck Finish	38-430	38-430	38-430	38-430
mm A	28	28	28	28
mm B	108*	144*	177*	218*
mm C	104	140	173	213
mm D	52	59	76	92

**When measured with closures on bottle*

PET/PETG Bottle Closures

NALGENE HDPE Closures, Sterile, natural high-density polyethylene

For use with PET/PETG Square Media Bottles (catalog numbers 342044-xxxx, 342024-xxxx). Gamma irradiated to provide 10^{-6} Sterility Assurance Level (SAL). Closures meet current biological testing standards including USP Class VI, USP <661>, European Pharmacopeia for Abnormal Toxicity (modified), non-cytotoxic, non-hemolytic and non-pyrogenic. Made from ADCF (Animal Derived Component Free) materials.

Sterile

Cat. No.342151	-0200	-0240	-0384
Neck Finish	20-415	24-415	38-430
No. per Case	280	200	240

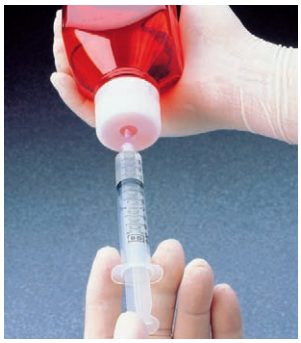
NALGENE Septum Closures, Sterile, natural high-density polyethylene closures, silicone/polytetrafluoroethylene septum

Combines elastomeric sealing of silicone with non-reactiveness of PTFE contact surface. No adhesives used. Dual-material septum offers increased gas barrier compared to silicone alone. Non-cytotoxic, non-pyrogenic. For use with PET/PETG Media Bottles. Gamma irradiated to provide 10^{-6} Sterility Assurance Level (SAL).

Sterile

Cat. No.342178	-0240	-0384
Neck Finish	24-415	38-430
No. per Case	200	240

NALGENE Septum Closures, Sterile, natural high-density polyethylene closure; silicone/polyvinylidene chloride septum



Combines the elastomeric sealing of silicone with the excellent CO_2 gas barrier of polyvinylidene chloride (PVDC) contact wetting surface. Provides a better than 40 fold improvement in CO_2 transmission rate over that of the PTFE/Silicone septum closure+. No adhesives are used to bond septum to closure. Leakproof when mated to NALGENE® PET and PETG Square Media Bottles with 38-430 neck finish. Meets current biocompatibility test standards for USP Class VI and European Pharmacopeia for abnormal Toxicity (modified). Non-cytotoxic, non-hemolytic, and non-pyrogenic. Gamma irradiated to 10^{-6} SAL. O.D. 43.2mm/1.7 in.; nominal weight 12.5 g.

Sterile

Cat. No.342180	-0380
Neck Finish	38-430
No. per Case	200

+Testing report available on request.

An integrated approach
A broad range of NALGENE® and NUNC™ brand products offer a fully integrated approach to bioproduction applications. Products in this section extend from 30-ml bottles to 757 L cylindrical tanks. NALGENE and NUNC Products are defined by premium quality, industry-changing innovation, and a commitment to provide the finest and most comprehensive bioproduction products.

Production Cell Culture Platforms
- Cell Factories
- Microcarriers
- Automated Cell Factory Manipulators
- InVitro® Roller Bottles
- Culture Vessels
- TripleFlasks
- Shaker Flasks

Solutions for Fluid Containment and Transfer
- Carboys and Leakproof Bottles
- Biotainer® Bottles and Carboys
- Tanks and Tank Liners
- Tubing Sets
- Top Works™ Systems
- B^3 Media Bags™

Fully-integrated, One-stop Shopping
A web-based Online Custom Tubing Set Configurator permits quick, trouble-free design, ordering and set-up of bioprocess systems utilizing NALGENE and NUNC brand products. This website was created to meet the increasing demand for deployment of single-use systems in upstream and downstream biopharmaceutical production applications. See the inside back cover for more information.

Quality Control and Regulatory Support
Documentation and validation materials are available to help you reliably meet regulatory requirements. All products are manufactured in compliance with quality standards to assure lot-to-lot consistency. Information by product is available on request.

Round Carboys

NALGENE Autoclavable Carboys with Handles, natural polypropylene; white polypropylene closures, TPE gaskets

Molded-in graduations in 1-gallon and 5-liter increments.

Ideal for the containment of media, bulk pharmaceutical ingredients and other solutions. NOTE: Before autoclaving, just set closure on top of the container without engaging the threads. Please refer to Sterilizing in the Technical Data section.

Cat. No.2250	-0020	-0050	-0130
Nom. Cap., L	10	20	50
Approx. Brim Cap., L	12.5	24	55
Nom. Weight, g	1,050	1,700	3,300
No. per Case	6	4	1
Neck Finish	83B	83B	83B
mm A	64	64	64
mm B	389	521	673
mm C	381	516	666
mm D	249	287	376

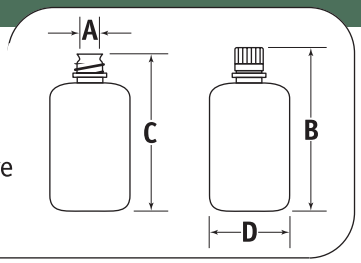
NALGENE Heavy Duty Vacuum Carboy, natural polypropylene; white polypropylene closures, TPE gaskets

Choose these carboys when service conditions are most extreme. Thicker walls give these polypropylene carboys added strength. Useful as vacuum trap, will hold full vacuum up to 8 hours. Leak proof and autoclavable. NOTE: Before autoclaving, just set closure on top of the container without engaging the threads. See Sterilizing in the Technical Data section.

Cat. No.2226	-0020	-0050
Nom. Cap., L	10	20
Approx. Brim Cap., L	12	24
Nom. Weight, g	1,560	2,670
No. per Case	6	4
Neck Finish	83B	83B
mm A	64	64
mm B	389	533
mm C	376	521
mm D	250	284

Round Carboys

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



NALGENE Clearboy™, Transparent Carboys, polycarbonate; white polypropylene closures, TPE gaskets

Clearboys are transparent, lighter and safer than glass; polycarbonate container is extremely tough and non-toxic. Autoclavable for sterile applications. Useful for large-volume media and culture preparation, especially where visual inspection of contents for quality is important. Ideal for refrigerated or frozen storage of aqueous solutions. Graduated to contain in 1-gallon and 5-liter increments. NOTE: Before autoclaving, just set closure on top of the container without engaging the threads. See Sterilizing in the Technical Data section.

Cat. No.2251	-0020	-0050
Nom. Cap., L	10	20
Approx. Brim Cap., L	12.5	24
Nom. Weight, g	900	1,060
No. per Case	4	4
Neck Finish	83B	83B
mm A	64	64
mm B	391	521
mm C	381	516
mm D	254	287

NALGENE Validation Bottle, transparent polycarbonate; white polypropylene closures, TPE gaskets

Manufactured from same clear PC, white PP and TPE as Cat. No. 002251 Carboys. Use as small-volume containers to perform material compatibility validation for larger PC carboys.

Cat. No.DS2127	-0030	-0250	-2000
Nom. Cap., ml	30	250	2000
Approx. Brim Cap., ml	38	380	2370
Nom. Weight, g	12	90	210
No. per Case	30	6	12
Neck Finish	20-415	53B	53B
mm A	14.0	45	42
mm B	75	135	270
mm C	72	129	260
mm D	32	74	123

NALGENE Carboys with Handles, natural low-density polyethylene; white polypropylene closures

Molded-in graduations in 1-gallon and 5-liter increments.

Cat. No.2210	-0020	-0040	-0050	-0065	-0130
Nom. Cap., L	10	15	20	25	50
Approx. Brim Cap., L	12.5	18	23	28	54
Nom. Weight, g	1,050	1,600	1,700	1,750	3,300
No. per Case	6	4	4	4	1
Neck Finish	83B	83B	83B	83B	83B
mm A	64	64	64	64	64
mm B	389	432	528	597	673
mm C	373	419	518	584	666
mm D	249	287	287	287	376

NALGENE Amber Carboy, amber high-density polyethylene; amber polypropylene closures

Opaque carboy meets USP latest edition light transmission requirements for storing light-sensitive materials.

Cat. No.2256	-7020
Nom. Cap., L	10
Approx. Brim Cap., L	12.5
Nom. Weight, g	1,450
No. per Case	6
Neck Finish	83B
mm A	64
mm B	390
mm C	373
mm D	241

NALGENE Wide-Mouth Carboys with Handles, natural low-density polyethylene; white polypropylene closures

Molded-in graduations in 1-gallon and 5-liter increments. Wide mouth opening for easy filling.

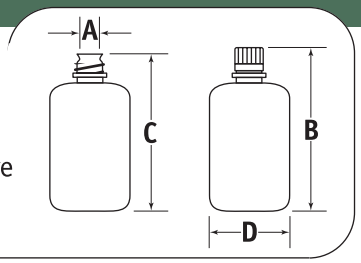
Cat. No.2234	-0020	-0030	-0050
Nom. Cap., L	10	15	20
Approx. Brim Cap., L	12	18	23
Nom. Weight, g	940	1,380	1,500
No. per Case	6	6	4
Neck Finish	100-415	100-415	100-415
mm A	88	88	88
mm B	343	389	483
mm C	338	381	480
mm D	249	287	287

NALGENE Autoclavable Wide-Mouth Carboys with Handles, natural polypropylene; white polypropylene closures

Convenient wide-mouth opening and wide shoulder handles. Graduated to contain in 1-gallon and 5-liter increments. Closure size is 100 mm. Ideal for handling large volumes of powders or other solid samples. NOTE: Before autoclaving, just set closure on top of the container without engaging the threads. See Sterilizing in the Technical Data section.

Cat. No.2235	-0020	-0050
Nom. Cap., L	10	20
Approx. Brim Cap., L	12	23
Nom. Weight, g	940	1,500
No. per Case	6	4
Neck Finish	100-415	100-415
mm A	88	88
mm B	343	483
mm C	335	480
mm D	249	287

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



Sanitary Carboys

NALGENE Sanitary Carboy, polycarbonate

Clear, non-threaded, autoclavable carboy can be used as receiver or dispensing vessel in pharmaceutical and biotechnology applications. The 3-inch sanitary flange molded on the neck accepts standard flanged fittings. A clamping closure system seals securely and will not back off. The sanitary design is easier to clean than threaded containers or vessels.

Manufactured with the same resin as NALGENE® PC Clearboys™ (Cat. Nos. DS2213, 2251, 2317) and PC bottles permits switching to Sanitary PC Carboys without material validation issues. Materials meet USP Class VI and FDA requirements. Accessories sold separately; see the following Sanitary Carboys Accessories section.

Cat. No.2261	-0050
Nom. Cap., L	20
Approx. Brim Cap., L	24
Nom. Weight, g	870
Neck Finish	3-in. Tri-Clover
No. per Case	4
mm A	68
mm B	N/A
mm C	498
mm D	287

NALGENE Sanitary Carboys, natural polypropylene with 3-in. welded sanitary flange

Tri-Clover Flange is welded to standard NALGENE PP Carboy permitting aseptic fluid transfer or sampling. Easy to clean with no screw threads. To seal closure, use with true union clamps (2670-0300) and gaskets (2672-0300). NOTE: For best results, autoclave with a vented end cap mounted, but with the clamp only lightly engaged.

Cat. No.2630	-0010	-0020	-0050
Carboy Cap., L (nom.)	10	20	50
No. per Case	1	1	1
Neck Finish	Tri-Clover, 3-in	Tri-Clover, 3-in	Tri-Clover, 3-in
mm A	72	72	72
mm B	N/A	N/A	N/A
mm C	353	495	645
mm D	250	285	379

Autoclavable Carboys with Sanitary Flange, natural polypropylene, polypropylene closure

Standard NALGENE carboys with a 1-1/2-inch sanitary fitting welded in for use as a dispensing port. Fitting is located on side near bottom and provides a secure sanitary connection allowing the carboy to be used as a supply reservoir to a larger system such as a fermentor or chromatography column. Molded in autoclavable PP. All materials are non-cytotoxic and pass USP Class VI Biological Testing. 83B PP closure with TPE gasket. Not recommended for use with hazardous materials. Accept No. 13-1/2 rubber stopper. NOTE: Before autoclaving, just set closure on top of the container without engaging the threads. See Sterilizing in the Technical Data section.

Cat. No.2640	-0020	-0050	-0130
Nom. Should. Cap., L	10	20	50
Nom. Should. Cap., gal.	2-1/2	5-1/2	13
Brim Cap., L (approx.)	12.5	24	55
Neck Finish	83B	83B	83B
No. per Case	1	1	1
mm A	64	64	64
mm B	389	528	678
mm C	376	518	668
mm D	250*	285*	379*

**add 48mm for diameter with sanitary fitting*

Sanitary Carboy Accessories

NALGENE End Caps, natural polypropylene

Use these end caps to securely close off 3/4" or 3" sanitary port. Groove on underside of end cap accepts standard sanitary gasket. Autoclavable end caps meet USP VI requirements and comply with 21CFR177.1520 for food use.

Cat. No.	Size, in.	Size, mm	No. per Case
2665-0075	3/4 Mini	19	1
2665-0300	3 Tri	76	1

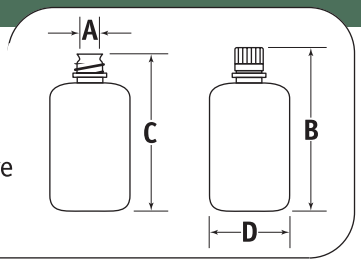
NALGENE End Caps, polycarbonate or polypropylene

Provide two 3/4-in. sanitary ports, mount to 3-in. sanitary flange. Autoclavable ported end caps allow easy fill/dispense operations. Use with Cat. Nos. 2630- and 2261-series carboys.

Cat. No.	Material	No. per Case
2688-2075	PC	4
2689-2075	PP	4

Sanitary Carboy Accessories

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



NALGENE True Union Clamps, polyvinylidene fluoride

All plastic autoclavable threaded clamp system. Recommended for use with 2630 and 2640 series carboys, 2688 and 2689 series end caps.

Cat. No.2670	-0075	-0150	-0300
Size, in.	3/4 Mini	1-1/2 Tri	3 Tri
Size, mm	19	38	76
No. per Case	1	1	1

NALGENE Heavy Duty Clamp, stainless steel

Strong spring-loaded autoclavable clamps assure tight, leakproof fluid connections. Recommended for use with 2261 series carboy.

Cat. No.2685	-0300
Size, in.	3
Size, mm	76
No. per Case	1

NALGENE Sanitary Gaskets, platinum cured silicone

Recommended for use with 2261, 2630 and 2640 series carboys and 2688 and 2689 series end caps. Autoclavable and meets USP Class VI requirements.

Cat. No.2672	-0075	-0150	-0300
For Ferrule Size, in.	3/4	1.5	3
For Ferrule Size, mm	19	38	76
No. per Pkg	1	1	1
No. per Case	6	6	6

Rectangular Carboys

NALGENE Rectangular Carboys, natural high-density polyethylene; white polypropylene closures

Sturdy, space-saving design with molded-in graduations to contain in liters and gallons. Built-in shoulder loops have convenient stainless steel handle attached. Wide-mouth opening for easy filling, transferring, cleaning. Closure size is 100 mm.

Cat. No.2211	-0020	-0050
Nom. Cap., L	9	20
Approx. Brim Cap., L	9.1	22.5
Nom. Weight, g	850	1,600
No. per Case	6	4
Neck Finish	100-415	100-415
mm A	86	89
mm B	358	399
mm C	351	389
mm D	216 x 146	218 x 318

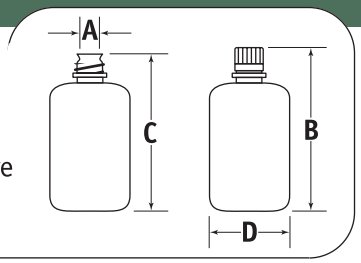
NALGENE Heavy Duty Rectangular Carboy, natural high-density polyethylene; natural polypropylene closure

An ideal choice for storage and transport of reagents. High density polyethylene (HDPE) carboy offers durability and chemical resistance. Integral handle provides ease in transport and pouring. Graduated to contain in 5 liter and 1 gallon increments. Convenient handle allow easy carrying and pouring even with gloved hands. Comes with valve-sealing leakproof 70mm closure.

Cat. No.2214	-0050
Nom. Should. Cap., L	20
Nom. Should. Cap., gal.	5
Approx. Brim Cap., L	20.8
Neck Finish	70
Min. Neck I.D., mm	48
Min. Neck I.D., in.	1-7/8
No. per Pkg	1
No. per Case	4
mm A	59
mm B	396
mm C	396
mm D	231 x 319

Rectangular Carboys

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



NALGENE Heavy-Duty Wide-Mouth Jug, natural high-density polyethylene; white polypropylene screw closures

Features the largest opening, 4 inches (120mm), in the NALGENE carboy line. Molded-in handle and recessed bottom allow easier filling and emptying without spills. Container is translucent and ideal for storing solids or powders. Wide stance and low center of gravity assure stability. Graduations molded in liters and gallons. Large neck allows easy cleaning, while space-saving rectangular shape permits efficient storage where space is limited.

Cat. No.2241	-0050
Nom. Should. Cap., L	20
Nom. Should. Cap., gal.	5
Approx. Brim Cap., L	24
Approx. Brim Cap., gal.	6
Neck Finish	120
Dim. L x W x H, mm	229 x 305 x 445
Dim. L x W x H, in.	9 x 12 x 17-1/2
No. per Pkg	1
No. per Case	4
mm A	104
mm B	455
mm C	442
mm D	315 x 246

NALGENE Autoclavable Rectangular Carboys, natural polypropylene; polypropylene screw closures

Space-saving carboys molded in tough, translucent and autoclavable polypropylene. Ideal for storing solutions, and handling large volumes of powders and other solid samples. Large Neck opening (3 1/2-in., 8.89-cm) for easier filling and cleaning. Sturdy stainless steel handle attached to molded-in shoulder loops. Graduated in liters and gallons. NOTE: Before autoclaving, just set closure on top of the container without engaging the threads.

Cat. No.2212	-0020	-0050
Nom. Cap., L	9	20
Nom. Cap., Gal.	2	5
No. per Pkg	1	1
No. per Case	6	4
Neck Finish	100-415	100-415
mm A	88	88
mm B	361	398
mm C	351	368
mm D	220 x 153	229 x 320

NALGENE Clearboy™, Rectangular Carboys, polycarbonate; polypropylene screw closures

Lightweight, glass-clear, extremely impact resistant. Ideal for collecting and storing solids and for use at extreme temperatures (see physical properties table in reference section). 3-1/2 inch (8.99-cm) neck opening for easy filling. Sturdy handle. Graduated in liters and gallons. NOTE: Before autoclaving, just set closure on top of the container without engaging the threads. See Sterilizing in the Technical Data section.

Cat. No.DS2213	-0020	-0050
Nom. Cap., L	9	20
Nom. Cap., Gal.	2	5
No. per Case	1	1
Neck Finish	100	100
mm A	86	86
mm B	361	399
mm C	351	389
mm D	320 x 153	229 x 320

Jerricans

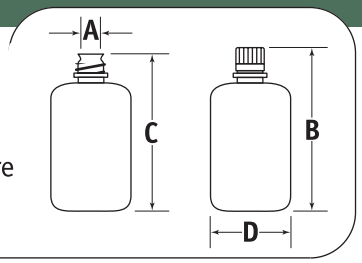
NALGENE Jerricans, natural high-density polyethylene; white polypropylene screw closures

Heavy, rugged design – intended for hard use. Wide stance and low center of gravity for greater stability. Integral spout is long enough for accurate pouring. Strap-fastened leakproof closure cannot be lost. Graduations molded in liters and gallons. Recessed bottom provides second handgrip for pouring.

Cat. No.2240	-0015	-0025	-0050
Nom. Should. Cap., L	6	10	20
Nom. Should. Cap., gal.	1-1/2	2.5	5
Approx. Brim Cap., L	7.6	12	24
Approx. Brim Cap., gal.	1.9	3	6
Subdiv., gal.	1/4	1/4	1
Neck Finish	53B	53B	53B
No. per Pkg	1	1	1
No. per Case	6	6	4
mm A	36	38	41
mm B	335	376	452
mm C	328	368	447
mm D	176 x 213	246 x 199	320 x 245

Jerricans

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



NALGENE Fluorinated Jerricans, fluorinated high-density polyethylene; fluorinated polypropylene closure

Durable and specially designed for hard use. A fluorocarbon surface (both inside and outside) provides improved barrier properties and reduces solvent absorption and penetration. Fluorination enhances long-term container performance and prevents permeation loss. Wide stance with low center of gravity provides greater stability. Long, integral spout allows easy pouring. This leakproof jerrican has molded-in graduations (liters and gallons). Recessed bottom provides second handgrip for pouring. NALGENE fluorinated containers are useful with most acids, alkalies and aggressive organic solvents.

Cat. No.2242	-0025	-0050
Nom. Brim Cap., L	12	25
Nom. Brim Cap., gal.	3	6-1/2
Subdiv., L	2	4
Subdiv., gal.	1/2	1
Neck Finish	53B	53B
No. per Pkg	1	1
No. per Case	6	4
mm A	37	41
mm B	376	452
mm C	368	447
mm D	246 x 199	320 x 245

NALGENE 13L Jerricans, high density polyethylene with tethered polypropylene closures

Excellent choice for reagent storage. Heavy rugged design with good chemical resistance. Both Jerricans comply with FDA 21CFR 177.1520 and USP Class VI.

Cat. No. 2243-9013 offers two ports: pour spout with a tethered 53-mm closure and a second 38-mm port with closure behind the handle. Ideal as a reservoir in automated systems like the PRISM®* 3700 DNA Analyzer. The 53B closure can be plumbed with input/output tubing while the 38-mm closure is used for refilling or emptying the reservoir.

Cat. No.2243	-0013	-9013
Nom. Shoulder Cap., L	13	13
Nom. Shoulder Cap., gal.	3.4	3.4
Neck Finish	53B	53B; 38-430
No. per Pkg	1	1
No. per Case	4	4
mm A	38	38
mm B	378	378
mm C	378	378
mm D	229 x 189	229 x 189

**PRISM is a registered trademark of Applied Biosystems*

Jugs

NALGENE Jugs, natural low-density polyethylene; polypropylene screw closures

Large carrying handle allows use with rubber gloves for safe handling of corrosive liquids. Offset pour spout for easy, accurate pouring. Leakproof.

Cat. No.2220	-0010	-0020
Nom. Cap., L	4	8
Nom. Cap., Gal.	1	2
Neck Finish	38-430	53B (white)
No. per Pkg	1	1
No. per Case	6	6
mm A	25	38
mm B	300	381
mm C	295	376
mm D	152	191

NALGENE Jugs, natural polypropylene copolymer; polypropylene screw closures

Large carrying handle allows use of rubber gloves for safe handling of corrosive liquids. Offset pour spout for easy, accurate pouring. Excellent chemical resistance in autoclavable, leakproof jugs.
NOTE: For the best results, autoclave using a properly vented closure. See Sterilizing in the Technical Data section.

Cat. No.2221	-0010	-0020
Nom. Cap., L	4	8
Nom. Cap., Gal.	1	2
No. per Pkg	1	1
No. per Case	6	6
Neck Finish	38-430	53B (white)*
mm A	25	34
mm B	304	385
mm C	301	378
mm D	152	195

**with TPE gasket*

Bottles

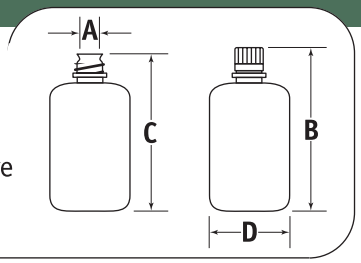
NALGENE Large Wide-Mouth Bottles, natural polypropylene copolymer; white polypropylene closures

For packaging dry materials or powders, not liquids.

Cat. No.2121	-0005	-0010
Nom. Cap., L	2	4
Approx. Brim Cap., ml	2,200	4,300
Nom. Weight, g	204	312
No. per Case	6	6
Neck Finish	100-415	100-415
mm A	89	89
mm B	234	279
mm C	229	274
mm D	119	152

Bottles

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



NALGENE Large Wide-Mouth Bottles, natural high-density polyethylene; white polypropylene closures

Excellent for many chemicals, water sampling or similar application.

Cat. No.2120	-0005	-0010
Nom. Cap., L	2	4
Approx. Brim Cap., ml	2,140	4,200
Nom. Weight, g	204	312
No. per Case	6	6
Neck Finish	100-415	100-415
mm A	89	152
mm B	234	279
mm C	229	274
mm D	119	152

TM1Bottle neck design is protected by US Trademark Reg. No. 2857283

NALGENE Heavy-Duty Bottles, natural high-density polyethylene; white polypropylene closures

Our most durable bottles. Large, thick-walled bottles with wide mouths for extra-rugged service. Excellent for use as reservoirs and waste traps in automated instrumentation.

Cat. No.2125	-1000TM1	-2000TM1	-4000TM1
Nom. Cap., ml	1,000	2,000	4,000
Approx. Brim Cap., ml	1,040	2,080	4,100
Nom. Weight, g	175	250	670
No. per Case	24	12	6
Neck Finish	53B	53B	83B
mm A	39	41	66
mm B	226	262	348
mm C	219	254	335
mm D	92	119	155

NALGENE Heavy-Duty Vacuum Bottles, natural polypropylene copolymer; white polypropylene closures; TPE gaskets

Our most durable autoclavable NALGENE bottles. Large, thick-walled bottles with wide mouth for extra-rugged service. Polypropylene bottle and white polypropylene closure with TPE gasket provide leakproof service. Withstand application of full vacuum for 24 hours at 20°C.

Cat. No.2126	-1000TM1	-2000TM1	-4000TM1	-5000TM1
Nom. Cap., ml	1,000	2,000	4,000	5,000
Approx. Brim Cap., ml	1,100	2,200	4,100	5,400
Nom. Weight, g	175	250	680	950
No. per Case	24	12	6	4
Neck Finish	53B	53B	83B	83B
mm A	41	41	69	69
mm B	231	262	348	414
mm C	224	254	335	402
mm D	91	119	155	156

NALGENE Validation Bottles, natural polypropylene copolymer; white polypropylene closures; TPE gaskets

Use as a small-volume container to perform material compatibility for larger bottles.

Manufactured from the same materials as Cat. No. 2126 Heavy-Duty Bottles.

Cat. No.DS2126	-0030	-0250™1
Nom. Cap., ml	30	250
Approx. Brim Cap., ml	38	310
Nom. Weight, g	12	125
No. per Case	30	6
Neck Finish	20-415	53B
mm A	14	34
mm B	75	133
mm C	72	126
mm D	32	73

NALGENE Large Wide-Mouth Square Bottle, natural polypropylene copolymer; white polypropylene closures

Space-saving square design with convenient, molded-in handgrips. For packaging dry materials or powders, not liquids.

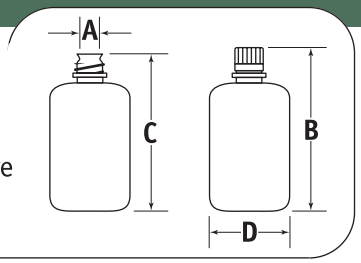
Cat. No.2122	-0010
Nom. Cap., L	4
Approx. Brim Cap., ml	4,300
Nom. Weight, g	280
No. per Case	6
Neck Finish	100-415
mm A	87
mm B	293
mm C	285
mm D	144 sq.

NALGENE Large Wide-Mouth Square Bottle, natural high-density polyethylene; white polypropylene closures

Same design as Cat. No. 002122, but molded of HDPE. Square shape saves space, wide mouth allows easy filling. Molded-in handgrips provide convenient pouring.

Cat. No.2123	-0010
Nom. Cap., L	4
Approx. Brim Cap., ml	4,300
Nom. Weight, g	280
No. per Case	6
Neck Finish	100-415
mm A	87
mm B	293
mm C	285
mm D	144 sq.

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



Cylindrical Tanks

CAUTION! Plastic tanks are generally subject to more severe conditions than plastic labware; exposure is constant, stresses are greater and different classes and concentrations of chemicals are involved. Please pay special attention to chemical compatibility.

NALGENE Heavy-Duty Cylindrical Tanks with Cover, high-density polyethylene

Factory-installed spigots can be installed on tanks up to 378L. NALGENE Tank Liners are available; Cat. Nos. 333050-XXXX and 343050-XXXX. Meets USP Class VI requirements and complies with 21CFR177.1520

Cat. No.11100	-0005	-0007	-0010	-0015	-0030
Nom. Cap., L	19	28	38	57	113
Nom. Cap., gal.	5	7-1/2	10	15	30
Graduations, gal.	0.5	0.5	1	1	2.5
Graduations, L	2	–	–	4	10
Nom. Dim. O.D. x D, cm	28 x 38	30 x 46	33 x 51	33 x 69	46 x 76
Nom. Dim. O.D. x D, in.	11 x 15	12 x 18	13 x 20	13 x 27	18 x 30
Nom. Wall Thick., mm	4.7	4.7	4.7	4.7	4.7
Nom. Wall Thick., in.	3/16	3/16	3/16	3/16	3/16
No. per Case	1	1	1	1	1

Cat. No.11100	-0055	-0080	-0100	-0150	-0200
Nom. Cap., L	208	303	378	568	757
Nom. Cap., gal.	55	80	100	150	200
Graduations, gal.	2.5	5	5	10	25
Graduations, L	10	20	20	40	200
Nom. Dim. O.D. x D, cm	56 x 91	61 x 122	71 x 112	79 x 124	91 x 130
Nom. Dim. O.D. x D, in.	22 x 36	24 x 48	28 x 44	31 x 49	36 x 51
Nom. Wall Thick., mm	6.3	6.3	6.3	6.3	6.3
Nom. Wall Thick., in.	1/4	1/4	1/4	1/4	1/4
No. per Case	1	1	1	1	1

NALGENE Lightweight Cylindrical Tanks with Cover, high-density polyethylene

Graduated, low-cost cylindrical tanks. External flange extends beyond rim when used as liner for steel drums. Wall thickness approximately 2.4 mm (3/32 in.). NALGENE tank liners are available. Meets USP Class VI requirements and complies with 21CFR177.1520.

Cat. No.54100	-0005	-0007	-0010	-0015	-0030	-0055
Nom. Cap., L	19	28	38	57	114	208
Nom. Cap., gal.	5	7-1/2	10	15	30	55
Nom. Dim. O.D. x D, cm	28 x 38	30 x 46	33 x 51	33 x 69	46 x 76	56 x 91
Nom. Dim. O.D. x D, in.	11 x 15	12 x 18	13 x 20	13 x 27	18 x 30	22 x 36
Nom. Wall Thick., mm	2.4	2.4	2.4	2.4	2.4	2.4
Nom. Wall Thick., in.	3/32	3/32	3/32	3/32	3/32	3/32
Graduations, gal.	0.5	0.5	1	1	2.5	2.5
Graduations, L	2	–	–	4	10	10
No. per Case	1	1	1	1	1	1

NALGENE Cylindrical PP Tanks with Cover, polypropylene

Factory-installed spigots can be installed on autoclavable tanks up to 378L. NALGENE Tank Liners are available; Cat. Nos. 333050-XXXX and 343050-XXXX. Meets USP Class VI requirements and complies with 21CFR177.1520.

Cat. No.11200	-0005	-0007	-0010	-0015	-0030	-0055	-0100
Nom. Cap., L	19	28	38	57	114	208	378
Nom. Cap., gal.	5	7-1/2	10	15	30	55	100
Nom. Dim. O.D. x D, cm	28 x 38	30 x 46	33 x 51	33 x 69	46 x 76	56 x 91	71 x 112
Nom. Dim. O.D. x D, in.	11 x 15	12 x 18	13 x 20	13 x 27	18 x 30	22 x 36	28 x 44
Nom. Wall Thick., mm	4.7	4.7	4.7	4.7	4.7	6.3	6.3
Nom. Wall Thick., in.	3/16	3/16	3/16	3/16	3/16	1/4	1/4
Graduations, gal.	0.5	0.5	1	1	2.5	2.5	5
Graduations, L	2	–	–	4	10	10	20
No. per Case	1	1	1	1	1	1	1

Cylindrical Tanks with Spigot

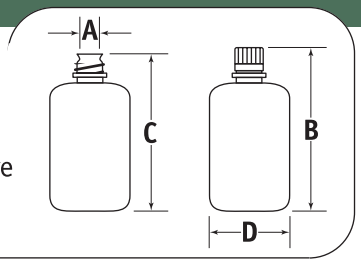
NALGENE Tanks with Spigot, high-density polyethylene

Same as Cat. No. 11100 tanks but with Cat. No. 6421 needle-type spigot for draw-off. Cover included. Spigot accepts 5/8-in. I.D. tubing. Meets USP Class VI requirements and complies with 21CFR177.1520.

Cat. No.11102	-0005	-0007	-0010	-0015	-0030	-0055
Cap., L	19	28	38	57	114	208
Cap., gal.	5	7-1/2	10	15	30	55
No. per Case	1	1	1	1	1	1

Cylindrical Tanks with Spigot | Rectangular Tanks

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



CAUTION! Plastic tanks are generally subject to more severe conditions than plastic labware; exposure is constant, stresses are greater and different classes and concentrations of chemicals are involved. Please pay special attention to chemical compatibility.

NALGENE Lightweight Cylindrical Tanks with Cover and Spigot, high-density polyethylene

HDPE tank, same as 54100, except equipped with Cat. No. 96423-0100 spigot for draw-off. Meets USP Class VI requirements and complies with 21CFR177.1520.

Cat. No.54102	-0005	-0007	-0010	-0015	-0030	-0055
Nom. Cap., L	19	28	38	57	114	208
Nom. Cap., gal.	5	7-1/2	10	15	30	55
Nom. Dim. O.D. x D, cm	28 x 38	30 x 46	33 x 51	33 x 69	46 x 76	56 x 91
Nom. Dim. O.D. x D, in.	11 x 15	12 x 18	13 x 20	13 x 27	18 x 30	22 x 36
Nom. Wall Thick., mm	2.4	2.4	2.4	2.4	2.4	2.4
Nom. Wall Thick., in.	3/32	3/32	3/32	3/32	3/32	3/32
Graduations, gal.	0.5	0.5	1	1	2.5	2.5
Graduations, L	2	–	–	4	10	10
No. per Case	1	1	1	1	1	1

Rectangular Tanks

NALGENE Rectangular Tanks with Cover, high-density polyethylene

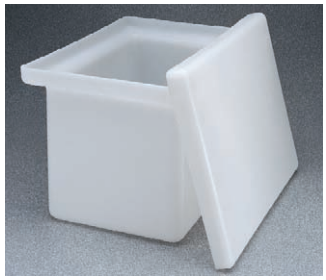
Tanks come with cover and can be modified with factory-installed spigot. Meets USP Class VI requirements and complies with 21CFR177.1520.

Cat. No.14100	-0002	-0005	-0010	-0015
Nom. Cap., L	8	23	27	42
Nom. Cap., gal.	2	6	7	11
Nom. Dim. L x W x D, cm	20 x 20 x 20	36 x 25 x 25	31 x 31 x 31	46 x 31 x 31
Nom. Dim. L x W x D, in.	8 x 8 x 8	14 x 10 x 10	12 x 12 x 12	18 x 12 x 12
Nom. Wall Thick., mm	3.9	3.9	3.9	3.9
Nom. Wall Thick., in.	5/32	5/32	5/32	5/32
No. per Case	1	1	1	1

Cat. No.14100	-0020	-0040	-0045	-0065
Nom. Cap., L	57	57	114	170
Nom. Cap., gal.	15	15	30	45
Nom. Dim. L x W x D, cm	61 x 31 x 31	47 x 31 x 47	61 x 46 x 46	61 x 46 x 61
Nom. Dim. L x W x D, in.	24 x 12 x 12	18 x 12 x 18	24 x 18 x 18	24 x 18 x 24
Nom. Wall Thick., mm	3.9	3.9	3.9	3.9
Nom. Wall Thick., in.	5/32	5/32	5/32	5/32
No. per Case	1	1	1	1

NALGENE Rectangular Tanks with Cover, polypropylene

Tanks come with cover and can be modified with factory-installed spigot. Sizes: 8 to 114 liters. Meets USP Class VI requirements and complies with 21CFR177.1520. Autoclavable.



Cat. No.14200	-0002	-0005	-0010	-0015	-0020	-0045
Nom. Cap., L	8	23	27	42	57	114
Nom. Cap., gal.	2	6	7	11	15	30
Nom. Dim. L x W x D, cm	20 x 20 x 20	36 x 25 x 25	31 x 31 x 31	46 x 31 x 31	61 x 31 x 31	61 x 46 x 46
Nom. Dim. L x W x D, in.	8 x 8 x 8	14 x 10 x 10	12 x 12 x 12	18 x 12 x 12	24 x 12 x 12	24 x 18 x 18
Nom. Wall Thick., mm	4.7	4.7	4.7	4.7	4.7	6.3
Nom. Wall Thick., in.	3/16	3/16	3/16	3/16	3/16	1/4
No. per Case	1	1	1	1	1	1

Closed Dome Tanks

NALGENE Closed Dome Tanks, polypropylene tank; white polypropylene closures, silicone gasket

Designed for use as closed systems. Use for reagent storage, dispensing, or aseptic mixing (2653-0010, 2653-0020, 2651-0200 and 2654-xxxx). Closed Dome Tanks are non-metallic, made from polypropylene and comply with 21CFR177.1520 and USP VI criteria. Polypropylene tanks can be sterilized by autoclaving; see Technical Data Section for more information. Tanks have a 150 mm neck opening fitted with a gasketed closure for secure sealing. Closed Dome Closure with Mixer Support (Cat. No. 2651) allows mounting of BioTech Mixer. Tanks may be configured with spigots. Meets USP Class VI requirements and complies with 21CFR177.1520.

75-L/20- gallon size

Cat. No.2650	-0020	-0030	-0055	-0100
Nom. Cap., L	75	115	210	380
Nom. Cap., gal.	20	30	55	100
O.D. x H (nom.), mm	419 x 813	470 x 981	559 x 1099	724 x 1321
O.D. x H (nom.), in.	16-1/2 x 32	18-1/2 x 38-5/8	22 x 43-1/4	28-1/2 x 52
Nom. Wall Thick., mm	6.3	6.3	6.3	7.9
Nom. Wall Thick., in.	1/4	1/4	1/4	5/16
No. per Case	1	1	1	1

Tank Accessories

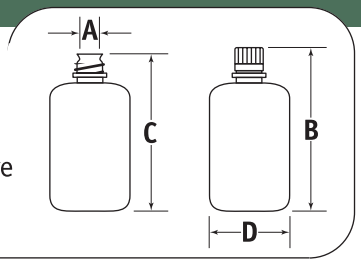
NALGENE Closed-Dome Tank Closure with Mixer Support Assembly,
polypropylene, PVDF True Union Clamp

An overhead mixer support assembly for use with all closed-dome tanks (Cat. Nos. 2650). The unique, sanitary flange assembly allows for overhead mixing in a closed system. Designed specifically for use with NALGENE Biotech Mixer (Cat. No. 2653 and Lower Assemblies Cat. No. 2654), the assembly consists of a 6-inch PP screw closure and silicone gasket with a 2-inch sanitary ferrule welded in the center, a 2-inch silicone gasket, and a true union clamp. Can be connected to other 2-inch sanitary fittings for drain lines and closed system filling. Individually packaged. Autoclavable, but must be kept vertical if assembled with lower assembly (Cat. No. 2654). Meets USP Class VI requirements and complies with 21CFR177.1520.

Cat. No.2651	-0200
No. per Case	1

Tank Accessories

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



CAUTION! Plastic tanks are generally subject to more severe conditions than plastic labware; exposure is constant, stresses are greater and different classes and concentrations of chemicals are involved. Please pay special attention to chemical compatibility.

NALGENE Needle Spigot, polypropylene; high-density polyethylene boss

For HDPE tanks up to 100 gal. PP spigots are installed on threaded HDPE boss which is welded onto tank at factory. Spigot has 1-1/8 - 12 straight female threads, 3/8-in. opening. Accepts 5/8-in. I.D. tubing. Boss fits only NALGENE tanks.

Cat. No.96423	-0100
No. per Case	1

NALGENE Needle-Type Tank Spigot, polypropylene; Teflon* TFE O-rings

Two Teflon O-rings for positive sealing. Only for NALGENE tanks up to 100 gals. with factory-welded threaded boss. Has 1-1/8 in. – 12 straight female threads. A replacement for Cat. No. 96423.

Cat. No.6421	-0010
No. per Pkg	1
No. per Case	12

**Or equivalent. Teflon is a registered trademark of DuPont.*

NALGENE BioTech Mixer Overhead Drive

BioTech Mixer and Lower Assemblies are specifically designed for aseptic mixing on NALGENE® Closed Dome Tanks up to 400L. This mixer system mounts through a 2″ sanitary fitting on the tank closure.

Features:

- 1/8 HP Motor operates with variable speed up to 240 RPM.
- Mounts directly to tank for aseptic mixing.
- Programmable for unattended speed and time control.
- Clockwise and counter-clockwise operation.
- Overload detection and automatic shutdown.
- Diagnostic mode checks operation at startup.
- LCD readout of power, speed, time, mixing capacity and more.
- Suitable for liquids and slurries up the following limits

Solids < 20% by weight.
Specific gravity < 1.2
Viscosity < 500 centipoise

- Certified for use in U.S., Canada, Europe and Japan

Supplied mixer instructions outline simple setup and guidelines for care. When ordering tank to use with a BioTech Mixer, specify Closed Dome Closure with Mixer Support (Cat. No. 2651-0200). See Lower Assembly (Cat. No. 2654) for shaft/impeller selection information.

Cat. No.2653	-0010	-0020
Electrical requirements	110 Volt	220 Volt
Power, HP	1/8	1/8
No. per Case	1	1

NALGENE Lower Assemblies for BioTech Mixers

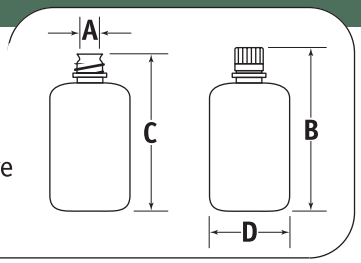
Autoclavable impeller and shaft combinations are designed for optimum mixing in specific sizes of NALGENE® 12L Culture Vessel and NALGENE Tanks. Use only with BioTech Mixer Overhead Drives (Cat. No. 2653).

Cat. No.2654	-0012*	-0030	-0055
For Use With	12-liter culture vessel (2600-0012)	30-gallon closed-dome tank (2650-0030)	55-gallon closed-dome tank (2650-0055)
Shaft Length, in.	13.5	30	32
Shaft Length, mm	343	762	813
Mixer Support, Cat. No.	-	2651-0200	2651-0200
Shaft Dia., in.	3/8	1/2	1/2
Shaft Dia., mm	10	13	13
Impeller Dia., in.	4	6.8	8.8
Impeller Dia., mm	102	173	224
Impeller Material	glass-filled polypropylene	316 stainless steel	316 stainless steel
No. per Case	1	1	1

**With baffle.*

Cat. No.2654	-0075	-0100
For Use With	75-liter closed-dome tank (11150-0020)/75-L	100-gallon closed-dome bio tank (2650-0100)
Shaft Length, in.	23	38
Shaft Length, mm	584	965
Mixer Support, Cat. No.	2651-0200	2651-0200
Shaft Dia., in.	1/2	1/2
Shaft Dia., mm	13	13
Impeller Dia., in.	6.3	10
Impeller Dia., mm	160	254
Impeller Material	316 stainless steel	316 stainless steel
No. per Case	1	1

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



Tank Liners

NALGENE Tank Liners, Coex polyethylene film

Specifically designed for NALGENE® Cylindrical Tanks from 19L to 787L (5 gal to 200 gal). The open bag design with a flat bottom enhances mixing. Flexible liners offer cost-effective single-use biopharmaceutical and diagnostic reagent fluid processing using rigid plastic tanks. Coex Polyethylene film is free of animal-derived components. Non-sterile (Cat. No. 333050 series) or Gamma irradiated 25 - 40 kGy (343050 series) versions available. Non-pyrogenic (gamma-irradiated version only), non-cytotoxic, food grade film complies with USP VI.

Non-Sterile

Cat. No.	Liner Cap.	Fits Nalgene Tanks, Cat. No.	No. per Case
333050-0005	19L / 5 Gal	11100-0005, 54100-0005	10*
333050-0007	28L / 7.5 Gal	11100-0007, 54100-0007	10*
333050-0010	38L / 10 Gal	11100-0010, 54100-0010	10*
333050-0015	57L / 15 Gal	11100-0015, 54100-0005	10*
333050-0030	113L / 30 Gal	11100-0030, 54100-0030	10*
333050-0055	208L / 55 Gal	11100-0055, 54100-0055	10*
333050-0080	303L / 80 Gal	11100-0080, 54100-0080	10*
333050-0100	378L / 100 Gal	11100-0100, 54100-0100	10*
333050-0150	568L / 150 Gal	11100-0150, 54100-0150	10*
333050-0200	757L / 200 Gal	11100-0200/54100-0200	10*

Gamma Irradiated 20 - 40 kGy

Cat. No.	Liner Cap.	Fits Nalgene Tanks, Cat. No.	No. per Case
343050-0005	19L / 5 Gal	11100-0005, 54100-0005	10*
343050-0007	28L / 7.5 Gal	11100-0007, 54100-0007	10*
343050-0010	38L / 10 Gal	11100-0010, 54100-0010	10*
343050-0015	57L / 15 Gal	11100-0015, 54100-0005	10*
343050-0030	113L / 30 Gal	11100-0030, 54100-0030	10*
343050-0055	208L / 55 Gal	11100-0055, 54100-0055	10*
343050-0080	303L / 80 Gal	11100-0080, 54100-0080	10*
343050-0100	378L / 100 Gal	11100-0100, 54100-0100	10*
343050-0150	568L / 150 Gal	11100-0150, 54100-0150	10*
343050-0200	757L / 200 Gal	11100-0200/54100-0200	10*

**10 Individually heat-sealed packages in double polylined master carton.*

NALGENE Autoclavable Dolly, stainless steel

Designed to move small NALGENE tanks (up to 30 gallons/115 liters) and carboys during daily use or servicing. Autoclavable, non-corrosive and chemically resistant to acids and bases. Casters won't leave marks on floor.

Cat. No.2624	-0020
Maximum Weight Limit, lbs.	500
Maximum Weight Limit, kg	227.3
I.D. x H, in.	20-1/2 x 6-1/2
I.D. x H, mm	521 x 165
No. per Case	1

Flexible Containers

NALGENE B^3 Media Bags™, Sterile, Multi-layer film with EVA tubing

Single-use, flexible containers for sterile fluid containment. Lightweight and sterile, virtually eliminating the cleaning, storage and sterilization costs associated with reusable containers. Ideal for storing and processing tissue culture media, harvest collection, buffer solutions, and other sterile fluids. NALGENE® B^3 Media Bags are sterile to 10^{-6} SAL, non-pyrogenic and non-cytotoxic. Built-in handle allows for easy transport from benchtop to dispensing hoods. Two EVA tubing ports with 3/8-in. PP hose barbs allow for easy connections with other tubing for liquid transfer. Each bag comes with a septum port for aseptic introduction or extraction of fluids. Packaged in double-lined cartons for clean room use. Individually bagged.

Sterile

Cat. No.342950	-0010	-0020	-0050	-0500
Nom. Cap., L	5	10	20	0.5
No. per Case	10	10	10	10
Tubing I.D., in.	accepts 3/8	accepts 3/8	accepts 3/8	accepts 3/8
mm A	461	610	851	357
mm B	330	480	724	229
mm C	400	400	400	154
mm D	79	79	79	76

**Dimensions before filling*

B^3 Media Bags are not considered a medical device according to the U.S. FDA

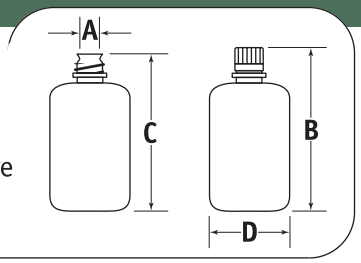
NALGENE Clip Clamp for B^3 Tubing Ports, red nylon

For B^3 Media Bags, Cat. No. 342950.

Cat. No.2960	-0001
No. per Case	10

Single-Use Disposable Bottles & Carboys

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



Single-Use Disposable Bottles & Carboys

NALGENE Single-Use Carboy, Sterile, natural high-density polyethylene; polypropylene closure

Innovative, single-use container is safer than glass and excellent for storing sterile fluids and pharmaceutical/biotech reagents. The ideal container to economically maintain and transfer sterile fluids and reagents. No cleaning, no prep, no set-up costs. Sterile (10^{-6} SAL). Materials meet the following requirements: food-grade, USP Class VI, non-cytotoxic;. See Cat. No. 2229-0001 for optional stainless steel handle/assembly.

Cat. No.342289	-0050
Nom. Cap., L	20
Approx. Brim Cap., L	23
Nom. Weight, g	870
No. per Case	6
Neck Finish	83B
mm A	64
mm B	501
mm C	495
mm D	285

NALGENE Single-Use Carboy – Non-Sterile, natural high-density polyethylene; polypropylene closure

Non-sterile version of Catalog No. 342289.

Cat. No.332289	-0050
Nom. Cap., L	20
Approx. Brim Cap., L	23
Nom. Weight, g	870
No. per Case	6
Neck Finish	83B
mm A	64
mm B	501
mm C	495
mm D	285

Handle for Single-Use Carboy, Stainless Steel

Cat. No.2229	-0001
Description	Stainless steel for 20L Single Use Carboys

Biotainer Bottles & Carboys, Sterile

Sterile InVitro™ Biotainer® Bottles, polyethylene terephthalate copolyester; polyethylene closures with polyethylene liners

Indented, ribbed handgrips and printed graduations are featured on all sizes except for 125ml. Choose from Lab Pack or Bulk Pack. Supplied sterile and ready to use. Materials meet current USP VI, are non-cytotoxic and non-pyrogenic. Reduce the risk of carry-over contamination by eliminating the cost of cleaning, sterilizing and associated validations.

Cat. No.3025	-42
Nom. Cap., ml	125
Approx. Brim Cap., ml	174
Nom. weight, g	45
No. per pkg	5
No. per Case	100
Neck Finish	38
mm A	28
mm B	105
mm C	101
mm D	52

Cat. No.3005	-42	-70
Nom. Cap., ml	500	500
Approx. Brim Cap., ml	670	670
Nom. weight, g	85	85
No. per pkg	5	35
No. per Case	70	70
Neck Finish	38	38
mm A	28	28
mm B	176	176
mm C	172	172
mm D	77	77

Cat. No.3110	-42	-35
Nom. Cap., ml	1000	1000
Approx. Brim Cap., ml	1200	1200
Nom. weight, g	150	150
No. per pkg	5	35
No. per Case	35	35
Neck Finish	48	48
mm A	37	37
mm B	201	201
mm C	197	197
mm D	98	98

Cat. No.3230	-42	-20
Nom. Cap., ml	2000	2000
Approx. Brim Cap., ml	2400	2400
Nom. weight, g	220	220
No. per pkg	5	20
No. per Case	20	20
Neck Finish	48	48
mm A	36	36
mm B	265	265
mm C	197	197
mm D	116	116

Biotainer Bottles & Carboys, Sterile

Sterile InVitro™ Biotainer® Bottles, polyethylene terephthalate copolyester; polyethylene closures with polyethylene liners

Indented, ribbed handgrips and printed graduations are featured on all sizes except for 125ml. Choose from Lab Pack or Bulk Pack. Supplied sterile and ready to use. Materials meet current USP VI, are non-cytotoxic and non-pyrogenic. Reduce the risk of carry-over contamination by eliminating the cost of cleaning, sterilizing and associated validations.

Cat. No.3025	-42
Nom. Cap., ml	125
Approx. Brim Cap., ml	174
Nom. weight, g	45
No. per pkg	5
No. per Case	100
Neck Finish	38
mm A	28
mm B	105
mm C	101
mm D	52

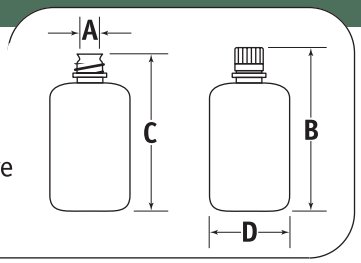
Cat. No.3005	-42	-70
Nom. Cap., ml	500	500
Approx. Brim Cap., ml	670	670
Nom. weight, g	85	85
No. per pkg	5	35
No. per Case	70	70
Neck Finish	38	38
mm A	28	28
mm B	176	176
mm C	172	172
mm D	77	77

Cat. No.3110	-42	-35
Nom. Cap., ml	1000	1000
Approx. Brim Cap., ml	1200	1200
Nom. weight, g	150	150
No. per pkg	5	35
No. per Case	35	35
Neck Finish	48	48
mm A	37	37
mm B	201	201
mm C	197	197
mm D	98	98

Cat. No.3230	-42	-20
Nom. Cap., ml	2000	2000
Approx. Brim Cap., ml	2400	2400
Nom. weight, g	220	220
No. per pkg	5	20
No. per Case	20	20
Neck Finish	48	48
mm A	36	36
mm B	265	265
mm C	197	197
mm D	116	116

Biotainer Bottles & Carboys, Sterile

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



Sterile InVitro™ Biotainer® Carboy, polyethylene terephthalate copolyester, polyethylene-lined polypropylene closure

These carboys meet current USP VI, are non-cytotoxic and non-pyrogenic. Supplied sterile and ready to use. Individually wrapped.

Cat. No.3415	-16*	-42
Nom. Cap., L	5	5
Approx. Brim Cap., ml	5,900	5,900
Nom. weight, g	750	750
No. per pkg	1	1
No. per Case	6	6
Neck Finish	48	48
mm A	37	37
mm B	337	337
mm C	335	335
mm D	255	255

**With polyethylene handle.*

Sterile InVitro™ Biotainer® Bottles, light blue polycarbonate; silicone lined polypropylene closures

Sterile, ready-to-use containers are molded in blue-tinted polycarbonate, providing safe storage from -100°C to 99°C. Closures feature a silicone liner. All sizes except for 5ml vial have printed graduations in mL. All have space-saving square shape and ribbed hand-grips (except 125ml). Meet USP 87, 88 and are tested for pyrogenicity. See also carboy section for larger sizes.

Cat. No.3500	-05
Nom. Cap., ml	5
Approx. Brim Cap., ml	10
Nom. weight, g	405
No. per pkg	100
No. per Case	500
Neck Finish	20-415
mm A	11
mm B	46
mm C	44
mm D	22

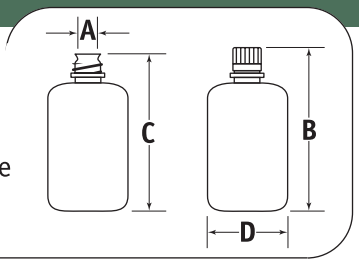
Cat. No.3030	-42
Nom. Cap., ml	125
Approx. Brim Cap., ml	174
Nom. weight, g	50
No. per pkg	5
No. per Case	50
Neck Finish	38
mm A	26
mm B	104
mm C	102
mm D	52

Cat. No.3120	-42
Nom. Cap., ml	1,000
Approx. Brim Cap., ml	1,240
Nom. weight, g	120
No. per pkg	5
No. per Case	35
Neck Finish	48
mm A	37
mm B	196
mm C	194
mm D	98

Cat. No.3233	-42
Nom. Cap., ml	2,000
Approx. Brim Cap., ml	2,475
Nom. weight, g	180
No. per pkg	5
No. per Case	20
Neck Finish	48
mm A	37
mm B	264
mm C	262
mm D	116

Biotainer Bottles & Carboys, Sterile

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



Sterile InVitro™ Biotainer® Carboys, light blue polycarbonate; silicone lined polypropylene closure

Sterile, ready-to-use carboys are molded in blue-tinted polycarbonate, providing safe storage from -100°C to 100°C. Closures feature a silicone liner. All sizes are leakproof and have molded-in graduations in mL. All have space-saving square shape. Meet USP 87, 88 and are tested for pyrogenicity. See bottle section for smaller sizes. Packaging: the -16 and -42 are individually wrapped and the -06 and -66 are bulk packed.

Cat. No.3405	-42	-16*	-06	-66*
Nom. Cap., L	5	5	5	5
Approx. Brim Cap., ml	5900	5900	5900	5900
Nom. weight, g	400	415	400	415
No. per pkg	1	1	6	6
No. per Case	6	6	6	6
Neck Finish	48	48	48	48
mm A	38	38	38	38
mm B	290	290	290	290
mm C	299	299	299	299
mm D	166	166	166	166

Cat. No.3410	-42	-08*
Nom. Cap., L	10	10
Approx. Brim Cap., ml	13,600	13,600
Nom. weight, g	755	750
No. per pkg	1	1
No. per Case	2	2
Neck Finish	48	48
mm A	37	37
mm B	337	337
mm C	335	335
mm D	250	250

Cat. No.3423	-42
Nom. Cap., L	20
Approx. Brim Cap., ml	24,400
Nom. weight, g	855
No. per pkg	1
No. per Case	3
Neck Finish	48
mm A	37
mm B	494
mm C	492
mm D	255

**with polyethylene handle*

Sterile InVitro™ Biotainer® Bottle, high-density polyethylene; silicone lined polypropylene closures

Sterile, ready-to-use leakproof HDPE bottle suitable for freezing and storing biological reagents from -100°C to 99°C. 38mm closure is silicone lined. 3.9L overflow volume. Black printed graduations in ml to 3000ml. Space saving square shape and convenient handle. Cat. No. 3750-24 comes with tamper evident shrink bands around neck and closure. Meets current USP 87, 88. Each lot tested for pyrogenicity.

Cat. No.3751	-24	-42
Nom. Cap., L	4	4
Approx. Brim Cap., ml	3900	3900
Nom. weight, g	195	195
No. per pkg	24	8
No. per Case	24	24
Neck Finish	38	38
mm A	28	28
mm B	299	299
mm C	295	295
mm D	143	143

Cat. No.3750	-24*
Nom. Cap., L	4
Approx. Brim Cap., ml	3900
Nom. weight, g	195
No. per pkg	8
No. per Case	24
Neck Finish	38
mm A	28
mm B	299
mm C	295
mm D	143

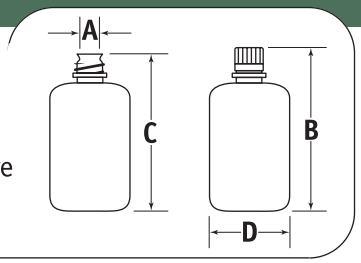
**with shrink-seal band*

3-Ported Closures For Biotainers, polypropylene; silicone liner

Radiation-stabilized 48mm QA PP closure with 3 ports and removable silicone liner. Fits all Biotainer products with 48mm neck. Use for filling/venting operations. Ports have tubulations on inside and outside of closure for attachment of tubing. Two 8mm fluid ports accept 6-7mm (1/4 in.) I.D. tubing. Vent port accepts 4.5mm (3/16 in.) tubing.

Cat. No.	Finish	Port I.D., in.	No. per Case
2560-0489	48	(2) 1/4", (1) 3/16"	4

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



Cell Culture

InVitro™ Brand Sterile Roller Bottles, polyethylene terephthalate copolyester; high-density polyethylene closures

Standard Roller Bottles - 1050 and 1800cm^2

For industrial scale production of vaccines, monoclonal antibodies or pharmaceuticals. Molded of durable PETG. Excellent substrate for adherent cell culture. Easy to read graduations for medium fills. Lot number is printed on each bottle to maximize traceablitity. The 1050cm^2 1.2X roller bottles have 23% more surface area then typical 850cm^2 bottles.

Twice as long as the 1.2X bottle, the 1800cm^2 1XL bottle reduces labor and sterile interventions by reducing the number of bottles required.

Standard Surface

Cat. No.1060	-05	-20	-85
Description	1.2X	1.2X	1.2X
Bottle Type	Standard	Standard	Standard/Vented
Culture area, cm^2	1050	1050	1050
Suggested working volume, ml	100-500	100-500	100-500
Units per pack/case	5/20	20/20	5/20

Cat. No.1860	-22
Description	1XL
Bottle Type	Standard
Culture area, cm^2	1800
Suggested working volume, ml	200-1000
Units per pack/case	22/22

PDL Coated

2-year shelf life

Cat. No.1060	-50	-52
Description	1.2X	1.2X
Bottle Type	Standard	Standard
Culture area, cm^2	1050	1050
Suggested working volume, ml	100-500	100-500
Units per pack/case	20/20	2/2

InVitro™ Brand Sterile Roller Bottles, Expanded Surface, polyethylene terephthalate copolyester; high-density polythylene closures

Expanded Surface Roller Bottles - 1700, 2100, 4200 cm^2

~~Patented*~~ InVitro Expanded Surface (XPS) Roller Bottles provide up to 250% more growth area than same-volume standard bottles. XPS Bottles can conveniently expand existing production capacity and reduce interventions per bottle, resulting in lower risk of contamination.

InVitro XPS Roller Bottles have specially designed pleats that dramatically expand available growth surface. The pleats are oriented in the direction of rotation to minimize turbulence. Flat panels between sections allow microscopic viewing and expedite drainage during medium replacement and cell harvest.

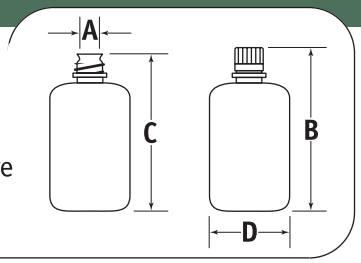
Expanded Surface

Cat. No.	Description	Bottle Type	Culture area, cm^2	Suggested working volume, ml	Units per pack /case
1760-20	2X	Expanded	1700	200-600	20/20
2160-05	2.5X	Expanded	2100	200-600	5/20
2160-20	2.5X	Expanded	2100	200-600	20/20
4260-22	5X	Expanded	4200	400-1000	22/22

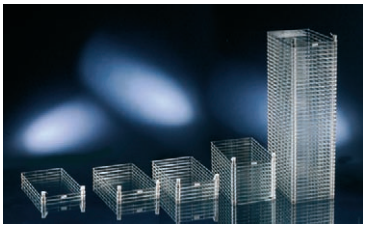
Vented Closures

Cat. No.	Description	Sterile	Units per pack /case
3080-01	48mm vented closure	Yes	1/300

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



Cell Factories

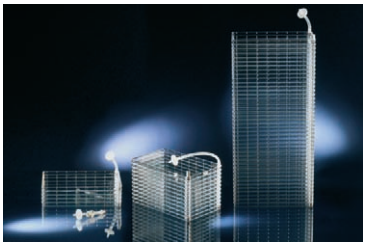


Sterile Nunc Cell Factories, polystyrene; Nunclon™Δ surface

For laboratory and industrial applications including vaccines, cell culture expansion and production of other biologics. Same growth kinetics as laboratory scale culture. Available in 1, 2, 4, 10 and 40 tray versions for easy scale-up.

Compact design. Certified Nunclon® surface treatment ensures excellent conditions for cell attachment and growth. Narrow filling ports design is optimized for aseptic handling. Cell Factories are manufactured on multiple production lines. Length 335 mm, Width 205 mm.

Cat. No.	Number of trays	Culture area, cm^2	Suggested working volume, ml	Units per pack /case
165250	1	632	200	1/8
167695	2	1264	400	1/5
140004	4	2528	800	1/10
164327	10	6320	2000	1/2
170009	10	6320	2000	1/6
139446	40	25280	8000	1/2



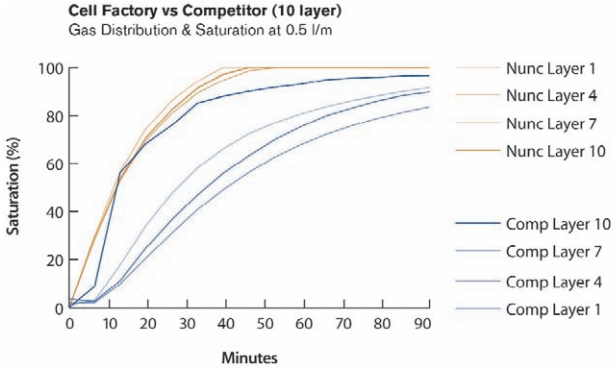
Sterile Nunc Cell Factories for Active Gassing, polystyrene; Nunclon™Δ

Patented gas-flow system* maintains a controlled culture tray atmosphere. Equally distributes gas mixture through pre-mounted filter. Oxygen-demanding and pH-sensitive cells may benefit from a controlled atmosphere. Certified Nunclon®Δ surface treatment ensures excellent conditions for cell attachment and growth.

Same growth kinetics as laboratory scale culture. Available in 4, 10 and 40 tray versions for easy scale-up. Narrow filling port design is optimized for aseptic handling. Compact design. Compatible with existing manual and automated handling equipment from Nunc. Length 335 mm, Width 205 mm.

**US Patent Pending*

Cat. No.	Number of trays	Culture area, cm^2	Suggested working volume, ml	Units per pack /case
173239	4	2528	800	1/10
173238	10	6320	2000	1/6
173240	40	25280	8000	1/2



NALGENE® nunc™

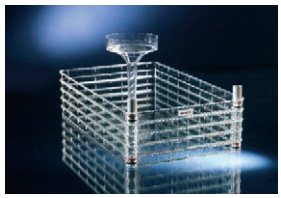
Accessories for Cell Factories

Accessories for Cell Factories

Useful accessories for ease in filling and emptying the Cell Factories. Sterile funnel may be used under a Laminar Flow Hood for easy media filling.

Cat. No.	Description	Sterile	Units per pack /case
140050	Funnel Polystyrene	Yes	1/6
171840	Connector HDPE	No	10/10
179553	4210 Filter	Yes	1/10
167525	White Tyvek® Adaptor Cap	Yes	1/20
170615	Cover Caps	Yes	2/40
173250*	Connector Teflon	No	2/2
140099	PC Connector, long	No	10/10
140082	PC Connector, short	No	10/10
173208	Airvent filter with connector and septum	Yes	1/2

**Autoclavable*



140050

173208 173248
173200 173249

Start-up Kit Cell Factories

Starter kit includes: polycarbonate connector, airvent filter, adaptor cap, cover caps, tube clamp and silicone tubing. Sterile.

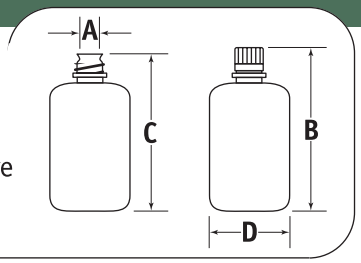
Cat. No.	Description
170769	Start-up Kit

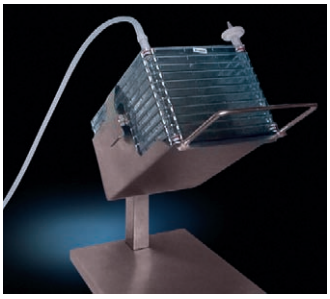
179553 140099
167525 167652

170769

Accessories for Cell Factories

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.





Cat. No. 132752

Cat. No. 176953

NUNC Cell Factory Hand Manipulator Systems, stainless steel

Hand Manipulators are designed for safe and efficient handling of Cell Factories 10 and 40. The CF10 Hand Manipulator is available as a tabletop model. The CF40 Hand Manipulator is available with wheels and a foot brake.

Cat. No.	Description	Material	For Cell Factory
132752	CF10 Hand Manipulator	Stainless steel	Cell Factory 10 Cat. No. 164327, 170009 and 173238
176953	CF40 Hand Manipulator	Stainless steel	Cell Factory 40 Cat. No. 139446 and 173240

NUNC Automated Cell Factory Manipulator System, stainless steel

Electronically and pneumatically controlled unit which facilitates filling and emptying of media and release of cells or cell suspension of 4 x 3 multiple Cell Factory 10 or 4 x 1 Cell Factory 40. Assembly racks with carts are available separately.

Cat. No.	Description	Material	For Cell Factory 10	For Cell Factory 40
132744	Automatic CF manipulator	Stainless steel	Cat. No. 164327, 170009, 173238	Cat. No. 139446, 173240

Special order required

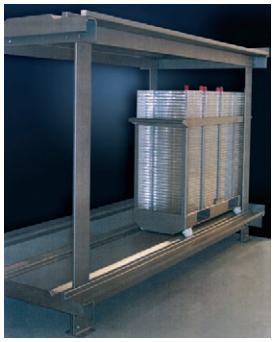
NUNC Cell Factory Incubator, stainless steel

Temperature, CO_2 and humidity are controlled via operating panel. Can be modified for active gassing of individual Cell Factories. Mobile for easy movement. Can be equipped with transparent internal doors for full visibility. Incubator holds 4 racks - each rack can hold either 12 Cell Factory 10 or 4 Cell Factory 40.

Cat. No.	Material	For Cell Factory 10	For Cell Factory 40
140224	Stainless steel	Cat. No. 164327, 170009, 173238	Cat. No. 139446, 173240

Special order required

NUNC Cell Factory Shelf Systems, stainless steel



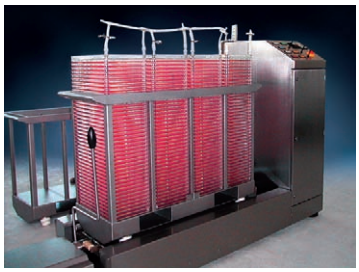
Modular system developed for optimal space utilization. Designed to hold the Nunc Cell Factory rack. Available in two different base depths. Further expansion modules can easily be attached to these modules. Equipped with a Rack Lift with a load capacity of 1300N (292 lbf) operated by compressed air.

Modular systems for Cell Factory 10 and Cell Factory 40 in rack.

Cat. No.	Material	For Cell Factory 10	For Cell Factory 40
140230	Stainless steel	Cat. No. 164327, 170009, 173238	Cat. No. 139446, 173240

Special order required

NUNC Cell Factory Manipulator Shaker, stainless steel



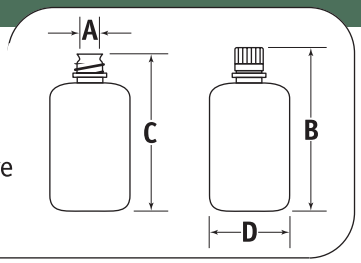
Horizontal shaking action detaches cells. Shaking frequently can be directly controlled or preset by the timer. Built to hold a rack with 4 x 3 Cell Factory 10 or 4 x 1 Cell Factory 40. Adjustable shaking frequency. Shaker unit can be manually or timer controlled.

For Cell Factory 10 and Cell Factory 40 in rack.

Cat. No.	Material	For Cell Factory 10	For Cell Factory 40
140225	Stainless steel	Cat. No. 164327, 170009, 173238	Cat. No. 139446, 173240

Special order required

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.

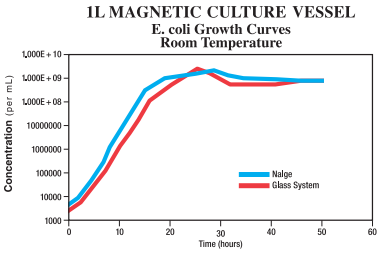


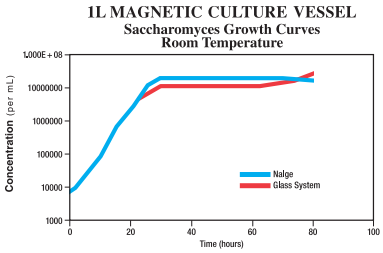
Culture Vessels

NALGENE Magnetic Culture Vessel, polycarbonate; polypropylene closures; Teflon* TFE stir bar; polypropylene/TFE stirring assembly

Specially designed for efficient top-to-bottom mixing at low speed and low shear. This lightweight, break-resistant 1-liter culture vessel is excellent for use on a magnetic stir plate for small-volume scale-up applications. This autoclavable vessel is leakproof and complies with USP Class VI requirements. Two magnetic stir bars are included: small (bacteria) and large (mammalian cells). Features two shoulder access ports. Impeller height is adjustable.

Cat. No.2605	-0001
Brim Cap., L	2.2
Working Cap., L	1
Closure Diameter, Top	63 mm
Closure Diameter, side	38-430
Overall Height x O.D., mm	266 x 137
Overall Height x O.D., in.	10-1/2 x 5-3/8
Overall Width, incl. Ports, mm	190
Overall Width, incl. Ports, in.	7-1/2
No. per Case	1





*Or equivalent. Teflon is a registered trademark of DuPont.

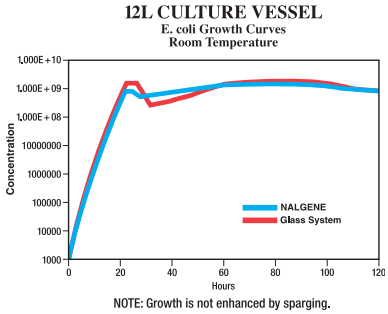
Culture vessel, stirring assembly, closure and grommet are also available separately. For replacement parts information, contact Technical.nalgene@thermofisher.com

NALGENE Culture Vessel with Ports, polycarbonate; white polypropylene closures

Economical, lightweight, and break-resistant. Features four shoulder access ports. Graduated in 0.5-L increments from 3 to 12 L. Meets the requirements of USP Class VI. Non-cytotoxic and autoclavable.

Cat. No.2600	-0012
Brim Cap., L	15
Working Cap., L	12
Overall Height x O.D., mm	429 x 289
Overall Height x O.D., in.	16-7/8 x 11-3/8
Closures, Top	100 mm
Closures, Side	38-430
No. per Pkg	1
No. per Case	2

Other culture vessel closures and fittings for Cat. Nos. 2600 and 2605: Autoclavable septum closure (Cat. No. DS2168). Closures with barbed bulkhead fittings (Cat. No. DS2167), Barbed bulkhead fittings Cat. No. 6149.



NOTE: Growth is not enhanced by sparging.

NALGENE Culture Vessel with BioTech Mixer

The Culture Vessel System includes a 12L Culture Vessel with Ports (Cat.. No. 2600-0012); 1/8 HP Overhead Drive BioTech Mixer (Cat. No. 2653-0010 or 2653-0020), Lower Assembly with 13-1/2-in. shaft (3/8-in. diameter) with 4-in. axial flow glass-filled polypropylene impeller and a 2-1/2" wide polypropylene baffle. Excellent for top-to-bottom mixing. The BioTech Mixer provides variable speed, programmable speed/duration control, clockwise and counter-clockwise rotation and is specifically designed for maximum efficiency with system components. Mixers are certified for use in the U.S., Canada, Japan, and the European Community. Vessel and Lower Assembly are autoclavable. For information on the mixer and lower assembly, see the Tank Accessories pages in this section.

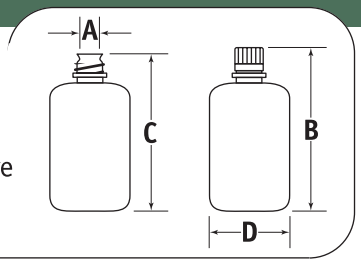
Cat. No.2602	-0110	-0220
Voltage	110	220
No. per Case	1	1

NALGENE Probe Adapter Closure, polypropylene; silicone gasket

Allows insertion of 7- to 14-mm diameter probes into NALGENE 1- and 12-liter culture vessels. Provides an autoclavable seal between the environment and the interior of the culture vessel to prevent contamination when a probe is in place.

Cat. No.	Closure Size	No. per Case
2145-0384	38-430	2

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



NALGENE Closures for Barbed Bulkhead Fittings, white polypropylene

Designed for use with NALGENE culture vessels. May be used with any NALGENE container with a 38-430 closure with ports (Cat. No. 2600) and culture vessel mixing system (Cat. No. 2602), these 38-430 polypropylene closures are pre-drilled for a 1/4- or 1/2-inch (6-13 mm) barbed bulkhead fitting. For fluid transfer on NALGENE containers with 38-430 closures. Components come unassembled.

Additional barbed bulkhead fittings are sold separately (Cat. No. 6149).

Cat. No.DS2167	-0001	-0002
Bulkhead Fitting, in.	1/2	1/4
No. per Case	4	4

NALGENE Autoclavable Septum Closure, polypropylene closure*, thermoplastic elastomer septum

Unique closure system suitable for use with any bottle or container with a 38-430 neck, including NALGENE culture vessel (Cat. No. 2600) and culture vessel mixing system (Cat. No. 2602), media bottles, and other square bottles. Allows aseptic injection of reagent or sample withdrawal without compromising sterility or integrity of contents. Use with 18 gauge or smaller needle.

Cat. No.DS2168	-0384
Size, mm	38-430
No. per Case	12

*For research use only, not for *in vitro* diagnosis or parenterals.

2D MicroHex Microcarriers

NUNC 2D MicroHex™ Microcarriers, polystyrene with Nunclon™Δ surface treatment; sterile

Microscopic polystyrene hexagons for adherent cell culture. Certified Nunclon® surface treatment ensures excellent conditions for cell attachment and growth. Shape and low specific gravity of MicroHex™ enables suspension at low stirring speeds. This facilitates the initial cell attachment and results in a uniform coverage of all carriers.

Solid, non-swelling, non-porous and non-absorbing. Easy trypsinization of cells.

Cat. No.	Grams per bottle	Culture area, cm^2	Units per pack /case
139102	2	1500	10
139104	10	7500	5
139106	20	15000	5
139108	100	75000	2

Regular hexagon:
Side length = 125 µ
Thickness = 25 µ
Density = 1.05 g/cm³
Cultivation area = 760 cm²/g

1-800-625-4327 (U.S.) • +1 585 586 8800 (Worldwide)

TripleFlasks

NUNC TripleFlasks, polystyrene with Nunclon™Δ surface treatment; high-density polyethylene closure, sterile

Three parallel growth surfaces provide a total culture area of 500 cm^2. External dimensions of a 175 cm^2 standard flask. Easy trypsinization of cells. Ideal for scale-up. Extra sterile caps in every carton. Nunclon® certified for consistent cell growth.

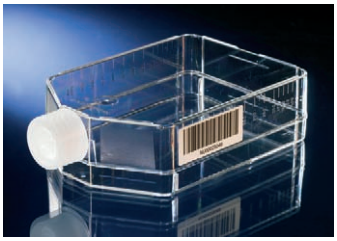
Cat. No.	Neck Style	Cap Style	Cap Material	Suggested working volume, ml	Units per pack /case
132867	Straight	Vent/close	HDPE	200	4/32
132903*	Straight	Filter	HDPE	200	4/32
132913	Straight	Filter	HDPE	200	4/32
132920†	Straight	Filter	HDPE	200	4/32

**Non-Treated*

†Bar-coded with large Code 128

NUNC Flasks, polystyrene with Nunclon™Δ surface treatment, high-density polyethylene closure, sterile

This cell culture, 175 cm^2 flask is bar-coded with large Code 128. It offers a short, wide neck for easy access and excellent optical quality. Designed to work with the TAP SelecT System.



Cat. No.	Neck Style	Cap Style	Cap Material	Suggested working volume, ml	Units per pack /case
178983	Straight	Filter	HDPE	68	4/32

Shaker Flasks

NALGENE Sterile Disposable Flasks, Plain Bottom, polyethylene terephthalate copolyester, white high-density polyethylene closures

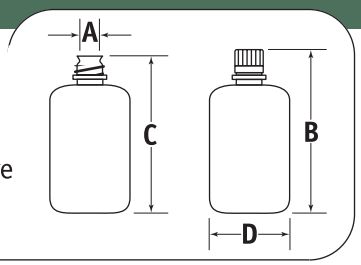
Sterile disposable flasks reduce the chance for cross contamination. Ideal for shaker and suspension cell culture, media preparation or storage. Made of light, crystal clear PETG. Molded-in graduations. Leak-proof high-density polyethylene screw closures open to vent with 1/4 turn. Flasks offer a 5-year shelf life, a 10^{-6} SAL, are non-pyrogenic and non-cytotoxic. Individually packaged for easy storage and handling. Also available with baffled bottom (Cat. No. 4113) for use on the bench top or shaker table. NALGENE sterile vented closures (Cat. No. 4114) are available for this product.

Plain Bottom

Cat. No.4112	-0125	-0250	-0500	-1000	-2000	-2800
Cap., ml	125	250	500	1000	2000	2800
Closure size, mm	38-430	38-430	45-430	45-430	45-430	70
No. per Case	24	12	12	6	4	4

Shaker Flasks

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



NALGENE Sterile Disposable Flasks, Baffled Bottom, polyethylene terephthalate copolyester, high-density polyethylene closures

Sterile disposable flasks reduce the chance for cross contamination. Ideal for shaker and suspension cell culture, media preparation or storage. Made of light, crystal clear PETG plastic. Molded-in graduations. Leak-proof high-density polyethylene screw closures open to vent with 1/4 turn. Flasks offer a 5-year shelf life, a 10^{-6} SAL, are non-pyrogenic and non-cytotoxic. Individually packaged for easy storage and handling. Also available with plain bottom (Cat. No. 4112). See also NALGENE vented closures (Cat. No. 4114), available separately.

Baffled Bottom

Cat. No.4113	-0125	-0250	-0500	-1000	-2000	-2800
Cap., ml	125	250	500	1000	2000	2800
Closure size, mm	38-430	38-430	45-430	45-430	45-430	70
No. per Case	24	12	12	6	4	4

**Fernbach shape*

NALGENE Sterile Disposable Flasks, Plain Bottom, Vented Closure, polyethylene terephtalate copolyester, high-density polyethylene .2µm closures

Sterile disposable flasks reduce the chance for cross contamination. Ideal for shaker and suspension cell culture, media preparation or storage. Made of light, crystal clear PETG. Molded-in graduations. High-density polyethylene closure has a hydrophobic 0.2µm PTFE membrane that allows sterile air exchange. Flasks offer a 5-year shelf life, a 10^{-6} SAL, are non-pyrogenic and non-cytotoxic. Individually packaged for easy storage and handling. Also available with baffled bottom (Cat. No. 4116) for use on the bench top or shaker table.

Plain Bottom with Vented Closures

Cat. No.4115	-0125	-0250	-0500	-1000	-2000	-2800
Cap., ml	125	250	500	1000	2000	2800
Closure size, mm	38-430	38-430	45-430	45-430	45-430	70
No. per Case	24	12	12	6	4	4

NALGENE Sterile Disposable Flasks, Baffled Bottom, Vented Closure,

polyethylene terephthalate copolyester, high-density polyethylene .2µm closures

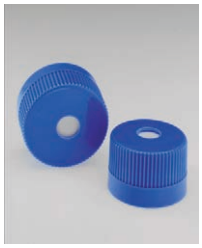
Sterile disposable flasks reduce the chance for cross contamination. Ideal for shaker and suspension cell culture, media preparation or storage. Made of light, crystal clear PETG plastic. Molded-in graduations. High-density polyethylene closure has a hydrophobic 0.2µm PTFE membrane that allows sterile air exchange. Flasks offer a 5-year shelf life, a 10^{-6} SAL, are non-pyrogenic and non-cytotoxic. Individually packaged for easy storage and handling. Also available with plain bottom (Cat. No. 4115).

Baffled Bottom with Vented Closure

Cat. No.4116	-0125	-0250	-0500	-1000	-2000	-2800
Cap., ml	125	250	500	1000	2000	2800
Closure size, mm	38-430	38-430	45-430	45-430	45-430	70
No. per Case	24	12	12	6	4	4

NALGENE Vented Closures for Sterile Disposable Erlenmeyer Flasks, blue high-density polyethylene, polytetrafluoroethylene membrane

Sterile vented closures provide sterile gas exchange for shaker and suspension cell culture. Hydrophobic 0.2µm PTFE membrane allows sterile air exchange without unscrewing the closure and is heat welded into place for effective sealing. Made of blue HDPE for easy identification. Use with NALGENE Sterile Disposable flasks (Cat. Nos. 4112 and 4113).



Cat. No.4114	-0038	-0045
Fits	125, 250 ml flasks	500, 1000, 2000 ml flasks
Closure No.	38-430	45-430
No. per Case	12	12

Fluid Transfer

Top Works™ Flexible Systems For NALGENE Carboys and Bottles, polypropylene closures, platinum-cured silicone inserts

Flexible, leakproof silicone Top Works Systems include solid, 2-port and 3-port versions. Platinum-cured silicone tubing is fused through stopper to form one-piece closure system. Autoclavable and leakproof, systems permit aseptic liquid transfer from most NALGENE bottles and carboys. Meets USP VI requirements. Bottles and carboys sold separately.

Cat. No.2135	-3800	-3803	-5300	-5302
NALGENE Closure Size	38-430	38-430	53B	53B
Closure Material (with hole)	PP	PP	PP	PP
Insert Material	Silicone	Silicone	Silicone	Silicone
No. of ports; I.D. sizes, in.	None (solid insert)	3 – (1) 1/4"; (2) 1/8	None (solid insert)	2 – 1/4"
No. per Case	1	1	1	1

Cat. No.2135	-5303	-8300	-8302	-8303
NALGENE Closure Size	53B	83B	83B	83B
Closure Material (with hole)	PP	PP	PP	PP
Insert Material	Silicone	Silicone	Silicone	Silicone
No. of ports; I.D. sizes, in.	3 – (1) 1/8", (2) 1/4"	None, (solid insert)	2 – 1/4"	3 – (1) 3/8"; (2) 1/4"
No. per Case	1	1	1	1

Top Works™ Systems For Media Bottle Closures–Schott, Corning* and Wheaton,** polysulfone closures with platinum-cured silicone inserts

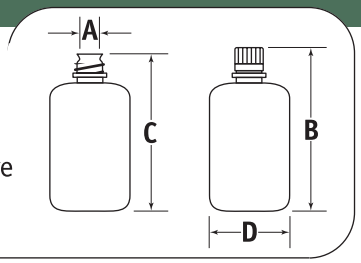
Autoclavable, leakproof systems permit easy aseptic media transfer from common glass media bottles. Meets USP VI requirements.

**Corning is a registered trademark of Corning, Inc.*

***Wheaton is a registered trademark of Wheaton Industries.*

Cat. No.2132	-1001	-1003
Screw Cap Size	GL45	GL45
Screw Cap Material	PSF	PSF
No. of ports, I.D., in.	None – (Solid) silicone	3 – (2) 1/4"; (1) 1/8"
No. per Case	1	1

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



NALGENE Quick Filling/Venting Closures, polypropylene, TPE Gasket

Ported 83B closure features quick disconnect fittings and inside/outside barbed tubulations. Forms a convenient fluid transfer system with the tubing of your choice. Available in 2 or 3 port styles for 1/4 inch or 3/8 inch tubing.

Socket fittings in cap have internal valves that seal when a tubulation fitting is removed so container seal integrity is maintained. Excellent for use in vacuum systems with NALGENE Heavy Duty Vacuum Carboys and Bottles (Cat. Nos. 2226, 2126). Use with NALGENE 180 heavy-wall tubing (Cat. No. 8000-0145 or 8000-0065). NOTE: Not recommended for vacuum use with lighter weight containers. Fitting-to-socket seals will not hold vacuum after multiple autoclavings.

Cat. No.2158	-0021	-0022	-0031	-0032
Bulkhead Fitting, in.	1/4	3/8	1/4	3/8
No. of PP Sanitary Ports	2	2	3	3
No. per Case	1	1	1	1

Replacement Fittings for Quick Filling/Venting Closures, polypropylene

Male polypropylene fitting with tubulation. NOTE: sizes are not interchangeable. Sizes -0001, -0002 are straight; sizes -0011 and -0012 are 90° elbow.

Cat. No.2159	-0001	-0002	-0011	-0012
Hose Barb Size, in.	1/4	3/8	1/4	3/8
No. per Case	6	6	6	6

NALGENE Filling/Venting Closures, white polypropylene, TPE gasket, TPE port caps, NALGENE 50 platinum-cured silicone tubing

Ideal closures for aseptic liquid transfer of media, biological reagents and chemicals to and from NALGENE carboys. Autoclavable closures can be used with any large NALGENE carboys or bottles that accept 53-mm (53B) or 83-mm (83B) closures. Includes NALGENE 50 platinum-cured silicone tubing, Cat. No. 8060.

Cat. No.2162	-0531	-0830	-0831
Overall Height (w/o Tubing) x Dia., mm	68.6 x 66.7	98 x 102	98 x 102
Overall Height (w/o Tubing) x Dia., in.	2-3/4 x 2-5/8	3-7/8 x 4	3-7/8 x 4
Closure Size, mm	53B	83B	83B
Tubing I.D., in.	1/4	1/2	1/4
No. per Pkg	1	1	1
No. per Case	6	6	6

NALGENE Barbed Bulkhead Fittings, polypropylene fittings (2), acetal nuts (2), silicone gaskets (2), TPE port cap

All-plastic fitting permits retrofitting of most NALGENE and other manufacturers' closures for liquid transfer. Unique autoclavable fitting with two barbed ends is useful wherever tubing must be attached on both ends. To install, simply drill two 5/8-inch (16-mm) diameter holes in closure, insert fittings, tighten, and attach tubing. Comes with complete directions and template for installation. Gasket and nut assemblies provide leakproof service. 53B Closure will accept two 1/4 inch fittings, but not 1/2 inch fittings. 83B closure accepts two of either size. Can be sterilized by autoclave, gas or chemical methods. For vacuum applications, use with NALGENE heavy-duty vacuum bottle or carboy Cat. No. 2126 and 2226.

Cat. No.6149	-0001	-0002
Fits Tubing W, I.D., in.	1/2	1/4
Overall H x W (at widest point), mm	64 x 25	56 x 16
Overall H x W (at widest point), in.	2-1/2 x 1	2-3/16 x 5/8
No. per Pkg	2	2
No. per Case	24	24

Media Bottles

TM1Bottle neck design is protected by US Trademark Reg. No. 2857283

TM2Square Bottle with arched shoulders design is protected by US Trademark Reg. No. 2857279

NALGENE Sterile Square Media Bottles, polyethylene terephthalate copolyester; white high-density polyethylene screw closure

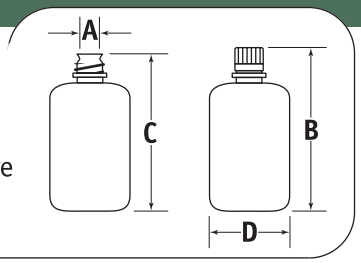
Inexpensive alternatives to glass media bottles. These heavy-walled durable, square PETG bottles are graduated to contain. Reduced permeability to CO_2/O_2. Leakproof bottles and closures are radiation-sterilized and non-pyrogenic to eliminate costly washing, depyrogenation and autoclaving steps. Heat-shrink band around closure and neck provides tamper-evident seal. Packed in shrink-wrapped trays. Sold by the case only. 2-L size (Cat. No. 2019-2000) has molded-in handgrips and a 53-mm (53B) white closure. Bottles are sterile to 10^{-6} SAL, non-cytotoxic and comply with USP Class VI guidelines.

Sterile

Cat. No.2019	-0030TM1 TM2	-0060TM1 TM2	-0125TM1 TM2	-0250TM1 TM2	-0500TM1 TM2	-1000TM1 TM2	-2000TM1 TM2
Cap., ml	30	60	125	250	500	1000	2000
Cap., oz.	1	2	4	8	16	32	64
No. Trays per Case	4	4	2	2	2	2	2
No. per Pkg	24	24	24	24	12	12	6
No. per Case	96	96	48	48	24	24	12
Neck Finish	20	24	38-430	38-430	38-430	38-430	53B
mm A	14	18	28	28	28	28	39
mm B	64	82	110	146	177	220	271
mm C	61	80	105	142	173	215	265
mm D	38	41	54	61	74	94	116

Media Bottles

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



Product Packaging Information

	Lab pack bottles – closures assembled	"34"	Sterile product
"31"	Bulk pack bottles – closures included but not assembled	"36"	Bottles and closures are bulk packed in separate cartons and must be ordered separately
"32"	Shrink-wrap module packaging	"38"	Low-particulate bottles – closures assembled
"33"	Bulk pack with closures assembled to the bottles	*See "Closures for Bulk Packed Bottles" at the end of the Packaging Section*	

NALGENE Narrow Mouth Bottles, Sterile, high-density polyethylene; white polypropylene closure

Sterile narrow mouth HDPE bottles with white PP closures have excellent chemical resistance. Manufactured and packaged in a controlled environment to minimize biological and particulate contamination. Packaged in shrink wrap tray modules which are double–bagged.

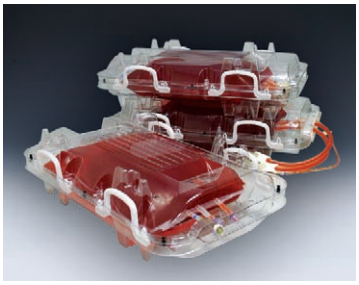
Cat. No.342002	-9025	-9050
Nom. Cap., ml	8	15
Approx. Brim Cap., ml	12	18
Nom. Weight, g	6	7
No. in Module	98	112
No. per Case	980	896
Neck Finish	20-415	20-415
mm A	13	13
mm B	44	58
mm C	42	56
mm D	25	25

Cat. No.342089	-0001	-0002	-0004	-0008	-0016	-0032™1
Nom. Cap., ml	30	60	125	250	500	1000
Approx. Brim Cap., ml	34	64	143	289	555	1,090
Nom. Weight, g	8	9	16	26	40	78
No. in Module	54	45	24	30	20	12
No. per Case	864	540	240	180	120	24
Neck Finish	20-415	20-415	24-415	24-415	28-415	38-430
mm A	13	13	18	18	20	28
mm B	61	84	102	132	170	216
mm C	58	81	99	130	168	213
mm D	36	38	51	61	74	91

Bioprocess Bag Management Systems

NALGENE Bioprocess Bag Management Systems, polycarbonate

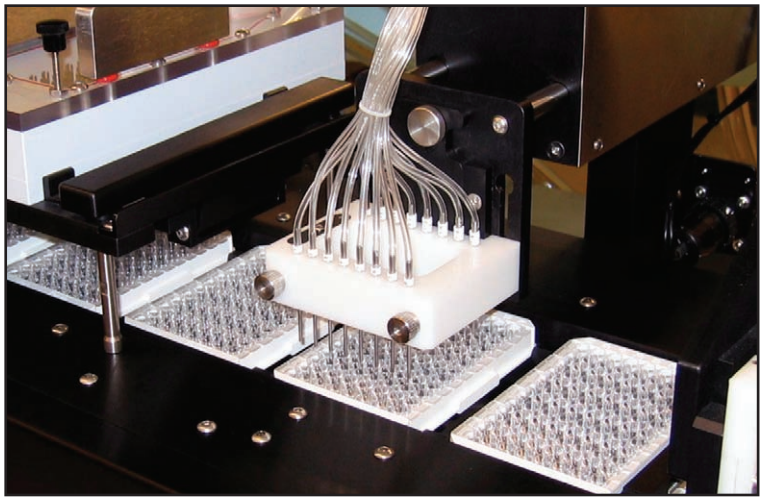
Rigid top and bottom shell body provides puncture resistance and protects pre-filled bioprocess bags during use and shipment. Systems are easy to set up and are nestable/stackable. Inside shell is contoured to form fit with many media bags found in today's market and minimizes bag movement during transport. Tubing compartment is generously sized to store multiple tubing ports sealed at end of bag. Made from a durable material that withstands frozen storage conditions and autoclave temperatures. Product complies with ISTA 1A. Contact us for availability.



Cat. No.15000	-0050	-0051	-0200	-0201
Description	5L Clear PC	5L Black Opaque PC	20L Clear PC	20L Black Opaque PC
O.D. L inches/cm	21-5/8 / 55	21-5/8 / 55	32-1/8 / 82	32-1/8 /82
O.D. W inches/cm	14-1/4 / 36	14-1/4 / 36	17-5/8 / 45	17-5/8 / 45
O.D. Ht. inches/cm	7-3/8 / 19	7-3/8 / 19	8-1/2 / 22	8-1/2 / 22
No. of Sets per Case	5	5	5	5

Quality Products for Diagnostic Kits

Thermo Fisher Scientific diagnostic products are used to produce test kits for clinical, veterinary, environmental, research and other commercial applications.



We offer a complete line of industry-leading microplates for ELISA and related applications, kit bottles, vials and plate pouches. NALGENE, NUNC and Thermo Scientific brand products are produced using premium virgin raw materials such as polystyrene, polypropylene, polypropylene copolymer, high- and low-density polyethylene, polyethylene terephthalate copolymer resins as well as premium laminate materials. Our validated manufacturing processes ensure superior intra- and inter-lot reproducibility. Accurate finished product testing ensures that each lot of product meets its specifications.

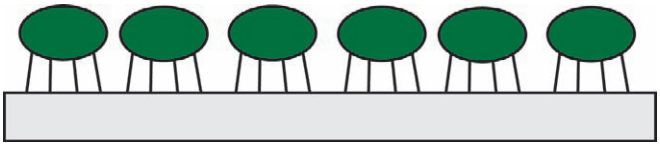
MicroWell Plates and Tubes for ELISA Applications

This section lists our 96-well plates that are most often used for the commercial application of ELISA and related solid phase binding assays. Featured formats include: module (strip) plates with breakable or nonbreakable wells (8-, 12- and 16-well) for greater flexibility in assay design, solid 96 well plates and tubes for RIA and EIA applications.

Several plate surfaces are offered to optimize binding by employing a variety of binding mechanisms including passive hydrophobic and hydrophilic interactions, covalent binding and ligand/receptor binding.

In addition to the plates listed here, we manufacture several others such as NUNC and Thermo Scientific brand round well bottom, high-density, and other specialty plates.

To view the complete NUNC and Thermo Scientific portfolio, please ask your sales representative for our catalogs: NUNC 2007 Catalog, N90000 0507 (US) or 32065 (Europe) and Thermo Scientific Finnpipette, Finntip, Microtiter, CAT-LCP-0107-01. You can also order catalogs from our websites: www.nalgene.com, www.nuncbrand.com and www.thermo.com/microtiter Also visit: www.plateguide.com



Polymer surface with attached biomolecules

Surfaces for Microplates and Tubes

Name	Mechanism	Biomolecular Preference
NUNC PolySorp™ Immulon® 1B Immulon MicroLite 1+ Immulon MicroFluor 1 Microtiter Universal Bind	Passive, Hydrophobic	Hydrophobic molecules Large lipids or "lipid-like" molecules Proteins with hydrophobic domains
NUNC MediSorp™ Immulon 2HB	Passive, Hydrophobic and Hydrophilic interactions	Medium to large size proteins with hydrophobic and hydrophilic domains
NUNC MaxiSorp™ Immulon 4HBX Immulon MicroLite 2+ Immulon MicroFluor 2 Microtiter Enhanced Bind	Passive, Hydrophobic and Hydrophilic interactions	Medium to large size proteins with hydrophobic and hydrophilic domains Immunoglobulins
NUNC MultiSorp™	Passive, Hydrophilic and Hydrophobic interactions	Medium to large size proteins with significant hydrophilic character.
NUNC Immobilizer™ Amino	Covalent binding to NH_2 or SH group	Any molecule with free NH_2 or SH
NUNC Covalink™ NH	Covalent binding via COOH or PO_4	Molecules with free COOH or PO_4 group
NUNC Immobilizer Streptavidin	Ligand /Receptor binding. Specific for biotinylated molecules	Any molecule with a free biotin group

Module (Strip) Plates

Module (Strip) Plates, Clear, Non-Breakable Modules, polystyrene

These NUNC and Thermo Scientific 96 well plates have clear solid non-breakable strips in several different formats; e.g. 8 well strips, 12 well strips, 16 well strips, different well shapes as well as a wide variety of binding surfaces. The modular format provides increased flexibility for assay design.

Please see the Technical Section on page 105 for descriptions of each Configuration and Style of module (strip) plate. Also reference the table "Surfaces for Microplates and Tubes" at the beginning of this section to choose the desired surface characteristics.

Brand	Cat. No.	Surface	Configuration**	Style	Total Volume, µl	Units per pack/case
NUNC	444865	PolySorp®	C8	MODULE	350	10/60
NUNC	445101*	MaxiSorp™	C8	MODULE	350	10/60
NUNC	473709*	MaxiSorp	C12	MODULE	350	10/60
NUNC	473717	PolySorp	C12	MODULE	350	10/60
NUNC	467466*	MaxiSorp	F16	MODULE	400	10/60
NUNC	467120*	MediSorp™	F8	MODULE	400	10/60
NUNC	468667*	MediSorp	F8	MODULE	400	10/60
NUNC	467140	MultiSorp™	F8	MODULE	400	10/60
NUNC	469078	PolySorp	F8	MODULE	400	10/60
NUNC	434797††	MaxiSorp	F8	MODULE	400	20/120
NUNC	436013	Immob Amino	F8	MODULE	400	5/30
NUNC	436020	Immob Strept	F8	MODULE	400	1/15
NUNC	478042	Covalink NH	F8	MODULE	400	5/30
NUNC	441254	PolySorp	StarWell 8	MODULE	380	10/60
NUNC	441653*	MaxiSorp	StarWell 8	MODULE	380	10/60
NUNC	475078	MaxiSorp	U8	MODULE	350	10/60
NUNC	475086	PolySorp	U8	MODULE	350	10/60
Thermo Scientific	95 029 350	UB	F8	MICROSD	330	25/50
Thermo Scientific	95 029 100*	EB	F8	MICROSD	330	25/50
Thermo Scientific	6505*	1B	F16†	IMMLNSD	330	25/100
Thermo Scientific	6506*	2HB	F16†	IMMLNSD	330	25/100
Thermo Scientific	6508*	4HBX	F16†	IMMLNSD	330	25/100

**Certified product – each lot has been tested using a binding assay. See Certification Criteria page.*

†F16 strip breaks into two 8 well strips. Individual wells cannot be broken apart.

***Well shape and number of wells per module (strip).*

††Only available in North and South America.

Module (Strip) Plates, Clear, Breakable Modules, polystyrene

These polystyrene NUNC and Thermo Scientific plates have clear modules (strips) that can be broken into any number of wells and placed in the frame. The breakable modular (strip) format provides a high degree of flexibility in assay design. Several formats are available: e.g. 8 well strips, 12 well strips and different well shapes as well as a wide variety of binding surfaces.

Please see the Technical Section on page 105 for descriptions of each Configuration and Style of module (strip) plate. Also reference the table "Surfaces for Microplates and Tubes" at the beginning of this section to choose the desired surface characteristics.

Brand	Cat. No.	Surface	Configuration**	Style	Total Volume, µl	Units per pack/case
NUNC	446469*	MaxiSorp™	C8	LW	350	10/60
NUNC	446470*	MediSorp™	C8	LW	350	10/60
NUNC	446490	MultiSorp™	C8	LW	350	10/60
NUNC	446442	PolySorp®	C8	LW	350	5/60
NUNC	436023	Immob Amino	C8	LW	350	5/30
NUNC	436022	Immob Strept	C8	LW	350	1/15
NUNC	473539	PolySorp	C8	BA	350	10/60
NUNC	473768*	MaxiSorp	C8	BA	350	10/60
NUNC	446477††	PolySorp	U8	LW	350	10/60
NUNC	446639††	MaxiSorp	U8	LW	350	10/60
Thermo Scientific	6310*	1B	F12	IMMLNBKA	350	100/100
Thermo Scientific	6309*	2HB	F12	IMMLNBKA	350	100/100
Thermo Scientific	6405*	4HBX	F12	IMMLNBKA	350	100/100
Thermo Scientific	95 029 390	UB	F8	MICROBK	400	25/50
Thermo Scientific	95 029 180*	EB	F8	MICROBK	400	25/50

**Certified product – each lot has been tested using a binding assay. See Certification Criteria page.*

***Well shape and number of wells per module (strip).*

††Only available in North and South America.

Module (Strip) Plates, White or Black, Non Breakable modules, polystyrene

These plates contain opaque black or white solid one-piece modules (strips) that provide increased flexibility in assay design. Several different formats; e.g. 8 well strips, 12 well strips, 16 well strips, different well shapes as well as several different binding surfaces are available. These plates are optimized for fluorescence detection.

Please see the Technical Section on page 105 for descriptions of each Configuration and Style of module (strip) plate. Also reference the table "Surfaces for Microplates and Tubes" at the beginning of this section to choose the desired surface characteristics.

Brand	Cat. No.	Color	Surface	Configuration**	Style	Total Volume, µl	Units per pack /case
NUNC	437591*††	W	MaxiSorp™	C8	MODULE	350	5/60
NUNC	437702††	W	PolySorp®	C8	MODULE	350	5/60
NUNC	475515*††	B	MaxiSorp	F16	MODULE	400	5/60
NUNC	475523††	B	PolySorp	F16	MODULE	400	5/60
Thermo Scientific	95 029 450	B	UB	F8	MICROSD	400	25/50
Thermo Scientific	95 029 490*	B	EB	F8	MICROSD	400	25/50†
Thermo Scientific	95 029 510	W	UB	F8	MICROSD	400	25/50

**Certified product – each lot has been tested using a binding assay. See Certification Criteria page.*

†100 case minimum order

***Well shape and number of wells per module (strip).*

††Recommended for fluorescense only.

Module (Strip) Plates, White or Black, Breakable Modules, polystyrene

These plates have opaque black or white modules (strips) that can be broken into any number of wells and placed in the frame, providing a high degree of flexibility in assay design. Different formats are available: e.g. 8 well strips, 12 well strips, different well shapes as well as several binding surfaces. These plates are optimized for fluorescence and luminescence detection. In most assays, white polymers give the best performance for luminescence and black polymers are recommended for fluorscence.

Please see the Technical Section page 105 for descriptions of each Configuration and Style of module (strip) plate. Also reference the table "Surfaces for Microplates and Tubes" at the beginning of this section to choose the desired surface characteristics.

Brand	Cat. No.	Color	Surface	Configuration**	Style	Total Volume, µl	Units per pack /case
NUNC	463201	W	MaxiSorp™	C8	LW	350	10/60
NUNC	446471	B	MaxiSorp	C8	LW	350	10/60
NUNC	463200	W	PolySorp™	C8	LW	350	10/60
NUNC	446473	B	PolySorp	C8	LW	350	10/60
Thermo Scientific	7561*	W	MicroLite 1+	F12	IMMLNBKA	380	100/100
Thermo Scientific	7562*	W	MicroLite 2+	F12	IMMLNBKA	380	100/100

**Certified product – each lot has been tested using a binding assay. See Certification Criteria page.*

***Well shape and number of wells per module (strip).*

Plate Accessories

Loose Modules (Strips), Clear or White, polystyrene

These products are separate modules (strips) that have not been assembled into frames to make complete 96 well plates.

Please see the Technical Section page 105 for descriptions of each Configuration and Style of module (strip) plate. Also reference the table "Surfaces for Microplates and Tubes" at the beginning of this section to choose the desired surface characteristics.

Brand	Cat. No.	Color	Surface	Configuration**	Style	Total Volume, µl	Units per pack /case
NUNC	469949*	Clear	MaxiSorp™	F8	MODULE	400	140/640
NUNC	469922	Clear	PolySorp®	F16	MODULE	400	80/320
NUNC	469957	Clear	PolySorp	F8	MODULE	400	160/640
NUNC	469914*	Clear	MaxiSorp	F16	MODULE	400	80/320
Thermo Scientific	6301*	Clear	1B	F16†	IMMLNSD	330	320/320
Thermo Scientific	6302*	Clear	2HB	F16†	IMMLNSD	330	320/320
Thermo Scientific	6404*	Clear	4HBX	F16†	IMMLNSD	330	320/320
Thermo Scientific	7566*	White	MicroLite 1+	F12	IMMLNBKA	380	320/320
Thermo Scientific	7567*	White	MicroLite 2+	F12	IMMLNBKA	380	320/320

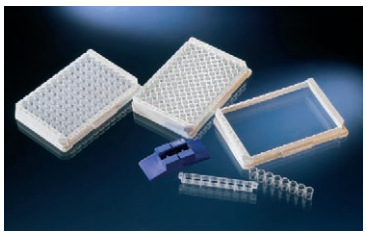
**Certified product – each lot has been tested using a binding assay. See Certification Criteria page.*

†F16 strip breaks into two 8 well strips. Individual wells cannot be broken apart.

***Well shape and number of wells per module (strip).*

Module (Strip) Plate Frames, polystyrene

These are 96 well modular (strip) plate frames that have not been populated with modules (strips). Modules of the same style fit into the corresponding frames.

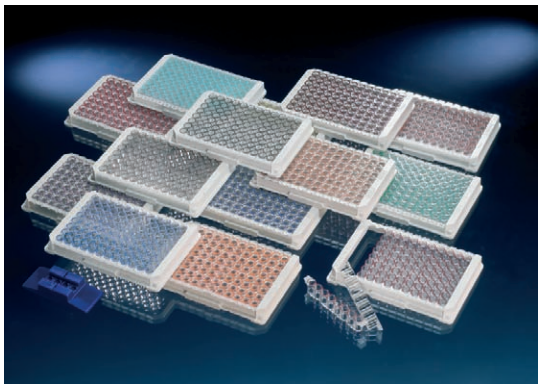


Brand	Cat. No.	Style	Units per pack /case
NUNC	460348	MODULE	5/60
NUNC	465404	LW	5/60
NUNC	431615	BA	5/60

Microplate Customization

Our microplates can be customized to fit your special needs. We offer the following:
- Special packaging and labeling
- Color coding of well rims
- Company logos or brand name inserts
- Custom coatings
- Custom surface modifications

To inquire about any of these product options, please contact your local sales representative or diagnostics@thermofisher.com.



Representative color coding of wells

Solid 96 Well Plates

Solid Plates, Clear, polystyrene

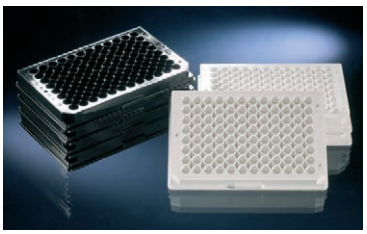
These are clear (transparent) solid 96 well plates. Several formats and surfaces are available.

Please see the Technical Section on page 105 for descriptions of each Configuration and Style of plate. Also refer to the Surfaces for Microplates and Tubes guide at the beginning of this section to review the characteristics of the surfaces offered.

Brand	Cat. No.	Surface	Configuration**	Style	Total Volume, µl	Units per pack /case
NUNC	439454*	MaxiSorp™	F96	PB	400	5/60
NUNC	442404	MaxiSorp	F96	PB	400	5/60
NUNC	467320*	MediSorp™	F96	HF	400	5/60
NUNC	467340	MultiSorp™	F96	HF	400	10/60
NUNC	475094	PolySorp®	F96	PB	400	5/60
NUNC	436006	Immob Amino	F96	PB	400	5/30
NUNC	436014	Immob Strept	F96	PB	400	1/15
NUNC	456529	PolySorp	F96	HF	400	10/180
NUNC	456537*	MaxiSorp	F96	HF	400	10/180
NUNC	446140	PolySorp	C96	PB	350	5/60
NUNC	446612*	MaxiSorp	C96	PB	350	5/60
NUNC	430341	MaxiSorp	C96	PB	350	5/60
NUNC	449824	MaxiSorp	U96	HF	350	5/60
NUNC	475434	PolySorp	U96	HF	350	5/60
Thermo Scientific	3355*	1B	F96	S	330	10/50
Thermo Scientific	3455*	2HB	F96	S	330	10/50
Thermo Scientific	3855*	4HBX	F96	S	330	10/50

**Certified product – each lot has been tested using a binding assay. See Certification Criteria page.*

***Well shape and wells per plate.*



Solid Plates, Black or White, polystyrene

These are opaque black or white solid (one piece) 96 well plates. Several formats and surfaces are available. These plates are optimized for fluorescence and luminescence detection. In most assays, white polymers give the best performance for luminescence and black polymers are recommended for fluorescence.

Please see the Technical Section on page 105 for descriptions of each Configuration and Style of plate. Also refer to the Surfaces for Microplates and Tubes guide at the beginning of this section to review the characteristics of the surfaces offered.

Brand	Color	Cat. No.	Surface	Configuration**	Style	Total Volume, µl	Units per pack /case
NUNC	W	436110*	MaxiSorp™	F96	PB	400	10/80
NUNC	W	436111	PolySorp®	F96	PB	400	10/80
NUNC	B	437111*†	MaxiSorp	F96	PB	400	10/80
NUNC	B	437112†	PolySorp	F96	PB	400	10/80
NUNC	W	436007	Immob Amino	F96	PB	400	5/30
NUNC	B	436008	Immob Amino	F96	PB	400	5/30
NUNC	W	436015	Immob Strep	F96	PB	400	1/15
NUNC	B	436016	Immob Strep	F96	PB	400	1/15
NUNC	W	437842†	PolySorp	C96	PB	350	5/60
NUNC	W	437796*†	MaxiSorp	C96	PB	350	5/60
Thermo Scientific	W	7572*	MicroLite 2+	F96	S	330	10/50
Thermo Scientific	W	7571*	MicroLite 1+	F96	S	330	10/50
Thermo Scientific	B	7605*	MicroFluor 1	F96	S	330	10/50
Thermo Scientific	B	7805*	MicroFluor 2	F96	S	330	10/50

**certified product – each lot has been tested using a binding assay.*

†For Fluorescence applications only

***Well shape and number of wells per plate.*

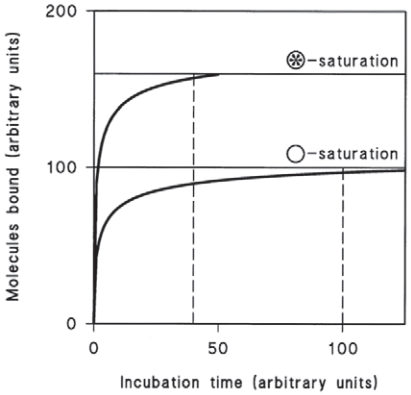
Immuno Tubes

NUNC Immuno™ Tubes, polystyrene

These clear tubes are used for solid phase immunoassay techniques such as IRMA and ELISA. The StarTubes have increased surface area to provide higher sensitivity and faster assay times.

Brand	Cat. No.	Surface	Configuration	External Dimensions, mm	Total volume, ml	Units per pack /case
NUNC	476503	PolySorp™	Star	75 x 12	5.0	100/3000
NUNC	470319*	MaxiSorp™	Standard	75 x 12	5.0	100/3000
NUNC	444202*	MaxiSorp	Star	75 x 12	5.0	100/3000

**Certified product – each lot has been tested using a binding assay.*



Average adsorption curves showing the increase in number of bound molecules and the decrease in incubation time obtainable with 350 µl reactant volume by use of the 75 x 12 mm StarTube (⊛), compared to the ordinary 75 x 12 mm Tube (○). The mutual relationship between these curves holds for the binding of every successive layer in the immuno assay sandwich.

Thermo SCIENTIFIC

NALGENE® nunc™

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Technical Section

This section provides:
(1) Our criteria for certification of consistent binding to the surfaces.
(2) A description of each plate and module (strip) style and well shape - (in the Style and Well Guide).
(3) A description of NUNC Immuno™ Tubes.

Certification Criteria

Plate surfaces are certified using an IgG binding assay. Testing must show reproducibility in accordance with the following specifications.

NUNC*

MaxiSorp™ –

Clear Wells
CV of <5% between wells; all results are ± 10% from the mean and background of all wells ± 0.005 adsorbence units from the mean.

Black and White
Well to well %CV of less than 10%: all results

MediSorp™
Well to well %CV of less than 5%: all results ± 10% from the mean for the lot, all blank wells with ± .005 OD units from the mean.

Thermo Scientific

Immulon
1B 2HB MicroLite 1+, Microfluor 1 – Well to well CV less than or equal to 8.5%.
4HBX, MicroLite 2+, Microfluor 2 – Well to well CV less than or equal to 5.5%.

Microtiter
EB- Well to well CV less than 5%, all blank wells with ± .005 OD units from the mean.

**For testing specifics, reference NUNC Bulletin No. 4 at www.nuncbrand.com*

Style and Well Guide

Module (Strip) Plates

"MODULE"

NUNC™ Immuno™ Module (strip) Plate – with non-breakable modules

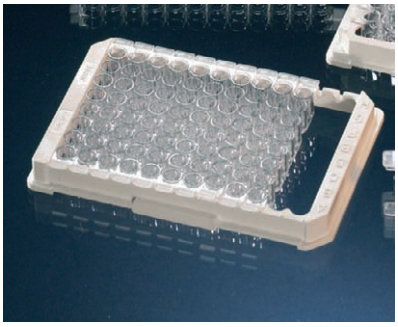
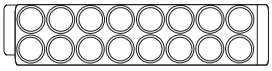


Plate Dimensions
128 x 86mm

8 Well Module

F8, C8, StarWell and U8 Module

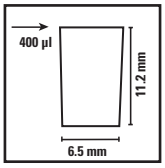


16 Well Module

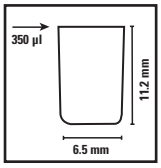
F16 Module

12 Well Module

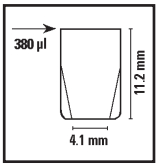
C12 Module



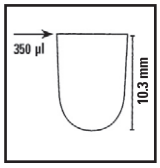
F-Well



C-Well



StarWell 8-Well



U-Well

"LW"

NUNC Immuno LockWell™ Module (strip) Plate – with breakable modules

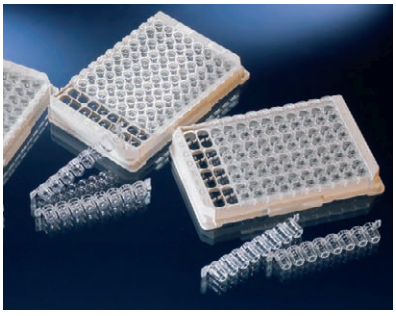
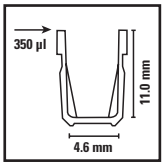


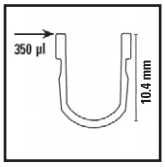
Plate Dimensions
128 x 86mm

8 Well Module

LockWell C8 Module



C-Well



LockWell™

"BA"

NUNC Immuno BreakApart™ Module (strip) Plate – with breakable modules*

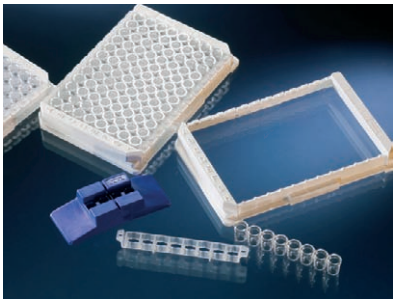
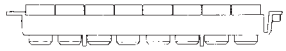
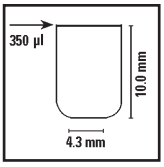


Plate Dimensions
128 x 86mm



8 Well Module

BreakApart C8 Module



C-Well

*Each module (strip) sits in a carrier. 12 carriers per plate.

Well Shapes

F Flat bottom shape wells provide excellent reproducibility

C C bottom wells have a slight radius on the inside bottom corner. This maximizes washing efficiency.

StarWell StarWell shape wells have fins which increase the surface area. This can increase assay sensitivity and decrease assay time.

For additional Well Dimension and Geometry information, see the NUNC™ brand catalog and the Thermo Scientific Finnpipette®, Finntip®, Microtiter® catalog.

"IMMLNBKA"

Thermo Scientific Immulon® Module (strip) Plate - Breakable Strips

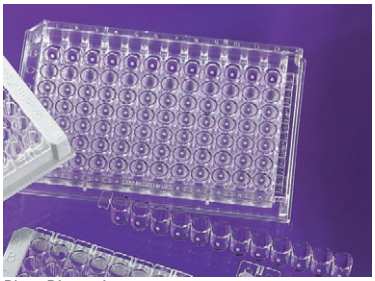
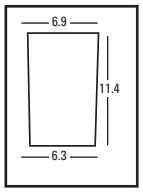


Plate Dimensions
128 x 86mm

F12 Module

12 Well Module



F-Well Dimensions
Vol. 380 µl
Area = 2.62 cm²
Flat

"IMMLNSD"

Thermo Scientific Immulon Module (strip) Plate - *Non breakable Strips

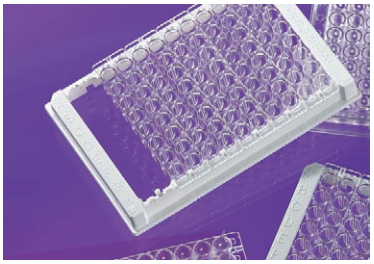
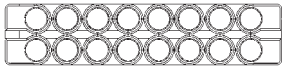


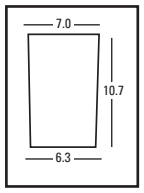
Plate Dimensions
128 x 86mm

*Can divide into two strips. Individual wells can not be broken off.



F16 Module

16 Well Module



F-Well Dimensions
Vol. 330 µl
Area = 2.65 cm²
Flat

"MICROSD"

Thermo Scientific Microtiter® Module (strip) Plate - Solid Strips

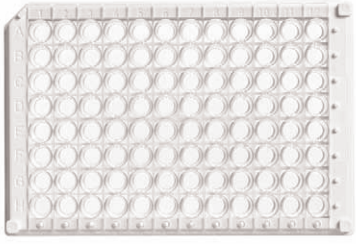
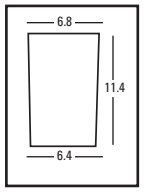


Plate Dimensions
128 x 86mm

F8 Module

8 Well Module



F-Well Dimensions
Vol. 400 µl
Area = 2.76 cm²
Flat

For additional Well Dimension and Geometry information, see the NUNC™ brand catalog and the Thermo Scientific Finnpipette®, Finntip®, Microtiter® catalog.

"MICROBK"

Thermo Scientific Microtiter® Module (strip) Plate- Breakable Strips

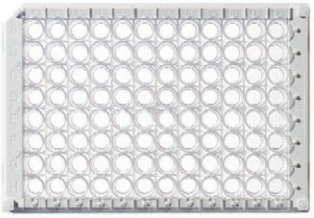
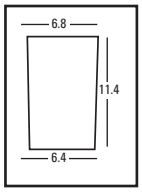


Plate Dimensions
128 x 86mm

F8 Module

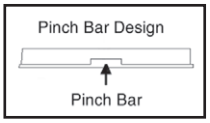
8 Well Module



F-Well Dimensions
Vol. 400 µl
Area = 2.76cm²
Flat

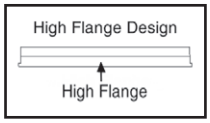
Solid 96 Well Plates

PB



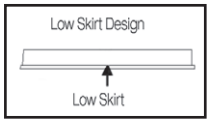
NUNC Low Skirt with
pinch bar - 128 x 86mm

HF



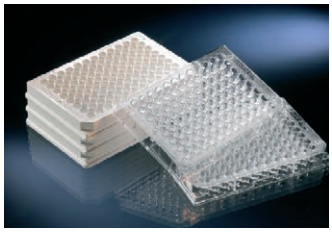
NUNC High flange
plate - 128 x 86mm

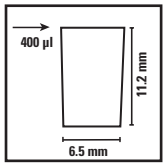
S



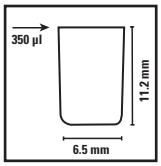
Thermo Fisher Low Skirt without
pinch bar - 128 x 86mm

NUNC

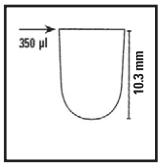




F-Well

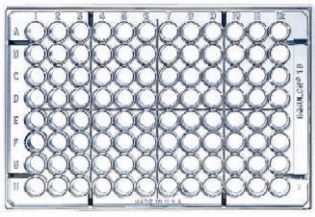


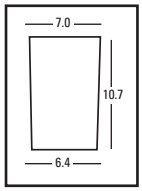
C-Well



U-Well

Thermo Scientific

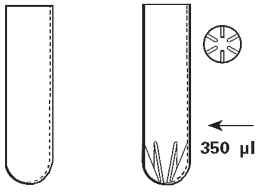




F-Well Dimensions
Vol. 330 µl
Area = 2.37cm²
Flat

Immuno™ Tubes

NUNC Immuno Tubes, Plain and StarTube (75 x 12mm)

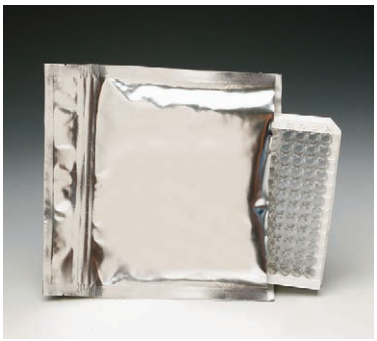


For additional Well Dimension and Geometry information, see the NUNC™ brand catalog and the Thermo Scientific Finnpipette®, Finntip®, Microtiter® catalog.

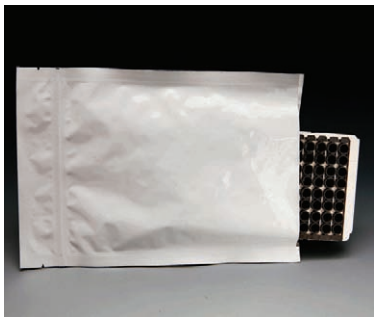
Pouches

Plate Pouches, Nylon/polyethylene/foil/polyethylene/ethylene vinyl acetate laminate

These flexible pouches offer excellent barrier properties to protect coated plates. They are designed with an open bottom and a .13" lip for easy opening, filling and heat sealing. Pouches also contain a reclosable zipper and tear notches for ease of use. Total material thickness is 4.3 mils. The Nylon outer layer provides excellent puncture resistance and strength. Barrier properties are extremely good due to the foil layer within the structure. MVTR-gms/100sq. in./24 hrs. = 0.0006. O_2TR-cc/100sq. in./24 hrs. = 0.0006.



Cat. No.	Size	Color
P16500	6.00" x 8.75"	White
P16502	6.00" x 8.75"	Silver



Cat. No.	Size	Color
P16503	7.00" x 7.13"	White
P16504	7.00" x 7.13"	Silver

Diagnostic Bottles, HDPE

Product Packaging Information

Lab pack bottles – closures assembled
"31" Bulk pack bottles – closures included but not assembled
"32" Shrink-wrap module packaging
"33" Bulk pack with closures assembled to the bottles
"34" Sterile product
"36" Bottles and closures are bulk packed in separate cartons and must be ordered separately
"38" Low-particulate bottles – closures assembled

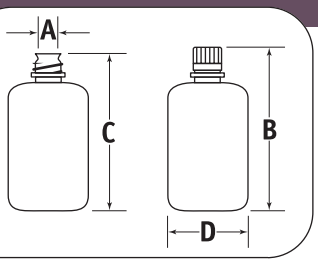
See "Closures for Bulk Packed Bottles" at the end of the Packaging Section

NALGENE Diagnostic Bottles - Bulk Pack with Closures, natural high-density polyethylene; natural polypropylene closures

Cat. No.312002	-9125	-9025	-9050
Nom. Cap., ml	3.4	8	15
Approx. Brim Cap., ml	4.2	12	18
Nom. Weight, g	4	6	7
No. per Case	2,000	2,000	2,000
Finish	13-415	20-415	20-415
mm A	8	13	13
mm B	41	44	58
mm C	39	42	56
mm D	16	25	25

Diagnostic Bottles, HDPE

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



Product Packaging Information

Lab pack bottles – closures assembled
"31" Bulk pack bottles – closures included but not assembled
"32" Shrink-wrap module packaging
"33" Bulk pack with closures assembled to the bottles
"34" Sterile product
"36" Bottles and closures are bulk packed in separate cartons and must be ordered separately
"38" Low-particulate bottles – closures assembled
See "Closures for Bulk Packed Bottles" at the end of the Packaging Section

NALGENE Diagnostic Bottles - Tray Pack with Closures, natural high-density polyethylene; natural polypropylene closures

Rigid trays are easy to handle: allow bottles to be filled in the trays. Closures are packaged in a separate bag. For bottle specifications, see the bulk pack version with a "31" catalog number prefix.

Cat. No.322002	-9125	-9025	-9050
Bottle Nominal Cap., ml	3.4	8	15
Module Nom. Dimensions, cm	32.2 x 23.3 x 4.3	33.5 x 26.6 x 4.5	33.5 x 10.5 x 5.0
No. in Module	332	98	112
No. per Case	1,328	1,500	1500

Closures are not assembled

NALGENE Diagnostic Bottles - Tray Pack with Closures, natural high-density polyethylene with white polypropylene closures

Sterile version of Cat. No. 322002. Bottles with closures assembled come in an SBS tray.

Sterile

Cat. No.342002	-9025	-9050
Bottle Nominal Cap., ml	8	15
No. in Module	98	112
No. per Case	980	896

Closures are assembled

NALGENE Diagnostic Bottles - Bulk Pack without Closures, natural high-density polyethylene

Order closures separately, Cat. No. 362150 series.

Cat. No.362002	-9125	-9025	-9050
Nom. Cap., ml	3.4	8	15
Approx. Brim Cap., ml	4.2	12	18
Nom. Weight, g	4*	6*	7*
No. per Case	2,000	2,000	2,000
Neck Finish	13-415	20-415	20-415
mm A	8	13	13
mm B	41	44	58
mm C	39	42	56
mm D	16	25	25

**When closure is attached.*

NALGENE Diagnostic Bottles - Bulk Pack with Closures, opaque amber high-density polyethylene; opaque amber polypropylene closures

These bottles meet the requirements of light-resistant containers per USP current edition. Bottles and closures are separately bagged.

Cat. No.312004	-9125	-9025	-9050
Nom. Cap., ml	3.4	8	15
Approx. Brim Cap., ml	4.2	12	18
Nom. Weight, g	4	6	7
No. per Case	2,000	2,000	2,000
Neck Finish	13-415	20-415	20-415
mm A	8	13	13
mm B	41	44	58
mm C	39	42	56
mm D	16	25	25

NALGENE Diagnostic Bottles – Tray Pack with Closures, opaque amber high-density polyethylene; opaque amber polypropylene closures

These bottles meet the requirements of light-resistant containers per USP current edition. Closures are separately bagged. For bottle specifications, see the bulk pack version with a “31” catalog number prefix.

Cat. No.322004	-9125	-9025	-9050
Nom. Cap., ml	3.4	8	15
Module Nom. Dimensions, cm	32.2 x 23.3 x 4.3	33.5 x 26.6 x 4.5	33.5 x 26.6 x 5.0
No. in Module	332	150	150
No. per Case	1,328	1,500	1,500

Closures are not assembled.

NALGENE Diagnostic Bottles – Bulk Pack without Closures, opaque amber polypropylene

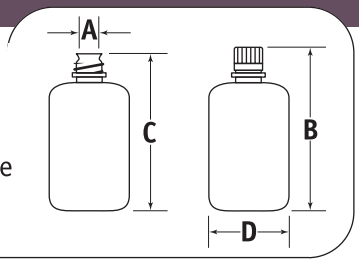
These bottles meet the requirements of light-resistant containers per USP current edition. Order closures separately, Cat. No. 362150.

Cat. No.362004	-9125	-9025	-9050
Nom. Cap., ml	3.4	8	15
Approx. Brim Cap., ml	4.2	12	18
Nom. Weight, g	4*	6*	7*
No. per Case	2,000	2,000	2,000
Neck Finish	13-415	20-415	20-415
mm A	8	13	13
mm B	41	44	58
mm C	39	42	56
mm D	16	25	25

When closure is attached.

Diagnostic Bottles, HDPE

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



NALGENE Diagnostic Bottles – Bulk Pack with Closures, translucent amber high-density polyethylene; opaque amber polypropylene closures

These bottles meet the requirements of light-resistant containers per USP current edition. Bottles and closures are separately bagged.

Cat. No.312084	-9125	-9025	-9050
Nom. Cap., ml	3.4	8	15
Approx. Brim Cap., ml	4.2	12	18
Nom. Weight, g	4	6	7
No. per Case	2,000	2,000	2,000
Neck Finish	13-415	20-415	20-415
mm A	8	13	13
mm B	41	44	58
mm C	39	42	56
mm D	16	25	25

Product Packaging Information

Lab pack bottles – closures assembled
"31" Bulk pack bottles – closures included but not assembled
"32" Shrink-wrap module packaging
"33" Bulk pack with closures assembled to the bottles
"34" Sterile product
"36" Bottles and closures are bulk packed in separate cartons and must be ordered separately
"38" Low-particulate bottles – closures assembled
See "Closures for Bulk Packed Bottles" at the end of the Packaging Section

NALGENE Diagnostic Bottles – Bulk Pack without Closures, opaque white 0high-density polyethylene

These bottles meet the requirements of light-resistant containers per USP current edition. Order closures separately, Cat. No. 362150 series.

Cat. No.362008	-9125	-9025	-9050
Nom. Cap., ml	3.4	8	15
Approx. Brim Cap., ml	4.2	12	18
Nom. Weight, g	4	6	7
No. per Case	2,000	2,000	2,000
Neck Finish	13-415	20-415	20-415
mm A	8	13	13
mm B	41*	44*	58*
mm C	39	42	56
mm D	16	25	25

**When measured with closure.*

Diagnostic Bottles, PP

NALGENE Diagnostic Bottles – Bulk Pack with Closures, natural polypropylene; natural polypropylene closures

Bottles and closures are separately bagged.

Cat. No.312006	-9125	-9025	-9050
Nom. Cap., ml	3.4	8	15
Approx. Brim Cap., ml	4.2	12	18
Nom. Weight, g	4	6	7
No. per Case	2,000	2,000	2,000
Neck Finish	13-415	20-415	20-415
mm A	8	13	13
mm B	41	44	58
mm C	39	42	56
mm D	16	25	25

NALGENE Diagnostic Bottles – Tray Pack, natural polypropylene; natural polypropylene closures

Closures are bagged separately. See Cat. No. 312006 for bottle specifications.

Cat. No.322006	-9125	-9025	-9050
Bottle Nominal Cap., ml	3.4	8	15
Color	Natural	Natural	Natural
Module Nom. Dimensions, cm	32.2 x 23.3 x 4.3	33.5 x 26.6 x 4.5	33.5 x 26.6 x 5.5
No. in Module	332	150	150
No. per Case	1,328	1,500	1,500

Closures are not assembled.

NALGENE Diagnostic Bottles – Bulk Pack without Closures, natural polypropylene

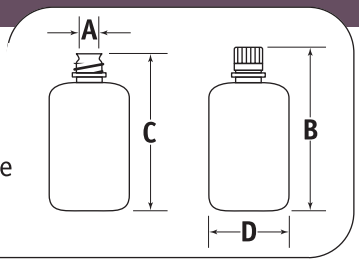
Order closures separately, Cat. No. 362150.

Cat. No.362006	-9125	-9025	-9050
Nom. Cap., ml	3.4	8	15
Approx. Brim Cap., ml	4.2	12	18
Nom. Weight, g	4*	6*	7*
No. per Case	2,000	2,000	2,000
Neck Finish	13-415	20-415	20-415
mm A	8	13	13
mm B	41	44	58
mm C	39	42	56
mm D	16	25	25

When closure is attached.

Dropper Bottles

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



Dropper Bottles

NALGENE Dropper Bottles, natural low-density polyethylene

NALGENE dropper bottles provide reliable, repeatable dispensing of reagents and are an excellent alternative to pipetting and other dispensing devices. Excellent chemical resistance; materials are suitable for most biotech, diagnostic, and pharmaceutical applications. The flexible, contact-clear LDPE dropper bottle permits easy content identification. Available in three convenient sizes. Dropper control tip snaps into place for a secure fit and delivers 40µl drops (based on water; viscosity affects drop size). Drops are dispensed one at a time.

For a complete system, order fitments and closures separately.

Cat. No.312750	-9125	-9025	-9050
Cap., ml	4	8	15
Neck Finish	15-415	15-415	15-415
No. per Case	2000	2000	2000

NALGENE Dropper Bottles, white low-density polyethylene

NALGENE dropper bottles provide reliable, repeatable dispensing of reagents and are an excellent alternative to pipetting and other dispensing devices. These white dispensing bottles are ideal for UV light-sensitive products. Excellent chemical resistance; materials are suitable for most biotech, diagnostic and pharmaceutical applications. Available in three convenient sizes. Dropper control tip snaps into place for a secure fit and delivers 40 or 50µl drops (based on water; viscosity affects drop size). Drops are dispensed one at a time.

For a complete system, order fitments and closures separately.

Cat. No.312751	-9125	-9025	-9050
Cap., ml	4	8	15
Neck Finish	15-415	15-415	15-415
No. per Case	2000	2000	2000

NALGENE Fitment (Dispensing Tip) for Dropper Bottles, natural low-density polyethylene

Fits NALGENE Dropper Bottles Cat. Nos. 312750 (natural LDPE) and 312751 (white LDPE.) LDPE offers excellent chemical resistance, making the tips suitable for most Biotech and Pharmaceutical applications. Bottles can be squeezed easily for critical drop control. Two drop sizes to choose from.

Must be ordered with bottles and closures (Cat. No. 312760) to complete dropper bottle system.

Cat. No.	Volume	Height, mm	Dia., mm	No. per Case
312759-0001	40µl*	16.50	11.2	2000
312758-0001	50µl*	16.50	11.2	2000

**Of drop dispensed*

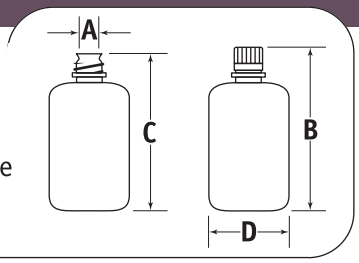
NALGENE Closures for Dropper Bottles, polypropylene

Fits NALGENE Dropper Bottles Cat. Nos. 312750, 312751.

Must be ordered to complete Dropper Bottle System.

Cat. No.312760	-0000	-0010	-0020	-0040	-0050	-0060
Color	Natural	White	Yellow	Green	Red	Blue
Finish	15-415	15-415	15-415	15-415	15-415	15-415
No. per Case	2000	2000	2000	2000	2000	2000

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



Micro Packaging Vials - Sterile - and Closures

NALGENE Micro Packaging Vials, Sterile, natural polypropylene copolymer

These 0.5, 1.5, 2.0, and 4.5-ml vials are molded from high purity, low-metal content polypropylene copolymer (PPCO) resin. The 0.5, 2.0, and 4.5-ml vials are skirted, with conical interiors to allow recovery of entire contents. The 1.5-ml vial has a conical design and fits easily in most biotechnology and diagnostic equipment. Vials and closures are pressure-tested together at 7.5 PSIG (51.7kPa) for air shipment. Vials and closures meet requirements of FDA CFR21 177.1520 for food and beverage use, USP Class VI and are non-pyrogenic. Single-use vials can be centrifuged at 13,000 x g. Components are provided sterile and non-sterile. Colored closures packaged separately; see Cat. Nos. 342820, 342821, 342830.

Sterile - Natural polypropylene copolymer

Cat. No.342800	-0005	-0015	-0020	-0045
Nom. Cap., ml	0.5	1.5	2.0	4.5
Approx. Brim Cap., ml	0.9	1.9	2.2	4.5
Nom. Weight, g	1.6	1.0	1.5	3.0
No. per Case	1,000	1,000	1,000	1,000
Neck Finish	11	11	11	13
mm A	8.4	8.4	8.4	9.4
mm B	49.0†	47.2†	49.0†	76.9
mm C	45.7	43.2	45.7	74.7
mm D	12.9*	12.9*	12.9*	12.3

Sterile - Amber polypropylene copolymer

Cat. No.342805	-0005	-0020
Nom. Cap., ml	0.5	2.0
Approx. Brim Cap., ml	0.9	2.2
Nom. Weight, g	1.6	1.5
No. per Case	1,000	1,000
Neck Finish	11	11
mm A	8.4	8.4
mm B	49.0†	49.0†
mm C	45.7	45.7
mm D	12.9*	12.9*

Sterile - polypropylene copolymer**

Cat. No.342810	-0005	-0020
Nom. Cap., ml	0.5	2.0
Approx. Brim Cap., ml	0.9	2.2
Nom. Weight, g	1.6	1.5
No. per Case	1,000	1,000
Neck Finish	11	11
mm A	8.4	8.4
mm B	49.0†	49.0†
mm C	45.7	45.7
mm D	12.9*	12.9*

†Height, high-profile closure assembled.

**At neck ring, vial body is 10.2.*

***Sterilized using ebeam irradiation*

NALGENE Closures with Color Coders for Micro Packaging Vial, polypropylene copolymer

Leakproof, threaded screw closure has no O-ring to fall out or contaminate contents. Color-coded inserts are permanently attached, free of toxic heavy metals and do not come in contact with vial contents.

Sterile

Cat. No.342820	-0110	-0112	-0113	-0114	-0115	-0116	-0117	-0118	-0119	-1110
Coder Color	No coder	Yellow	Orange	Green	Red	Blue	Gold	Purple	Natural	Teal
No. per Case	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Neck Finish, mm	11	11	11	11	11	11	11	11	11	11

NALGENE Micro Packaging Vial Closure, Low Profile, polypropylene copolymer

NALGENE Low-Profile Closures are offered in a variety of colors for quick identification. Leakproof closures are molded of high-purity, low metal-content polypropylene copolymer (PPCO) resin - excellent for PCR reagents. Meet the requirements of FDA CFR21 177.1520, USP Class VI, are noncytotoxic and non-pyrogenic.

Sterile

Cat. No.342821	-0110	-0111	-0112	-0114	-0115	-0116	-0118	-1111	-1112
Closure Color	Natural	White	Yellow	Green	Red	Blue	Purple	Amber	Pink
No. per Case	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Neck Finish, mm	11	11	11	11	11	11	11	11	11

NALGENE Closures with Color Coders for Micro Packaging Vials, polypropylene copolymer, amber

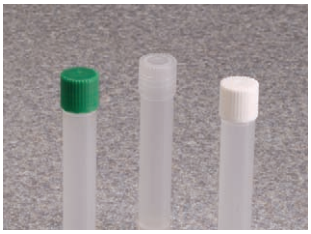
Leakproof, threaded screw closure has no O-ring to fall out and contaminate contents. Color-coded inserts are permanently attached, free of toxic heavy metals, and do not come in contact with vial contents. Closures meet the requirements of light-resistant containers per USP latest edition.

Sterile

Cat. No.342825	-0110	-0111	-0112	-0113	-0114	-0115	-0116	-0117	-0118	-0119	-1110	-1111
Coder Color	No Coder	White	Yellow	Orange	Green	Red	Blue	Gold	Purple	Natural	Teal	Amber
No. per Case	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Neck Finish, mm	11	11	11	11	11	11	11	11	11	11	11	11

NALGENE Micro Packaging Vial Closures for 4.5ml Vials, polypropylene copolymer

Leakproof, threaded screw closure has no O-ring to fall out or contaminate contents. Meet the requirements of FDA 21CFR 177.1520, USP Class VI, are non-cytotoxic and non-pyrogenic.

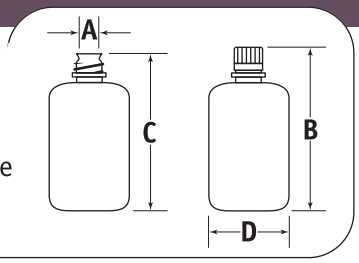


Sterile

Cat. No.342826	-0110	-0111	-0114
Closure Color	Natural	White	Green
Neck Finish, mm	13	13	13
No. per Case	1,000	1000	1,000

Micro Packaging Vials - Sterile - and Closures

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



NALGENE Closures with Color Coders for Micro Packaging Vial, high-density polyethylene

Leakproof, threaded screw closure has no O-ring to fall out or contaminate contents. Color-coded inserts are permanently attached and free of toxic heavy metals. Inserts do not come in contact with vial contents. Meet the requirements of FDA 21CFR 177.1520, USP Class VI, are non-cytotoxic and non-pyrogenic.

Sterile

Cat. No.342830	-0110	-0111	-0112	-0113	-0114	-0115	-0116	-0117	-0118	-0119	-1110
Coder Color	No Coder	White	Yellow	Orange	Green	Red	Blue	Gold	Purple	Natural	Teal
Neck Finish, mm	11	11	11	11	11	11	11	11	11	11	11
No. per Case	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1000

Sterile

Cat. No.342830	-5110	-5114	-5116	-5118
Coder Color	Lt. Tan	Lt. Green	Lt. Blue	Lt. Purple
Neck Finish, mm	11	11	11	11
No. per Case	1,000	1,000	1,000	1,000

Micro Packaging Vials - Non Sterile - and Closures

NALGENE Micro Packaging Vials, polypropylene copolymer

These 0.5, 1.5, 2.0, and 4.5-ml vials are molded from high purity, low-metal content polypropylene copolymer (PPCO) resin. The 0.5, 2.0, and 4.5-ml vials are skirted, with conical interiors to allow recovery of entire contents. The 1.5-ml vial has a conical design and fits easily in most biotechnology and diagnostic equipment. Vials and closures are pressure-tested together at 7.5 PSIG (51.7kPa) for air shipment. Vials and closures meet requirements of FDA CFR21 177.1520 for food and beverage use, USP Class VI and are non-pyrogenic. Single-use vials can be centrifuged at 13,000 x g. Components are provided sterile. Colored closures packaged separately; see Cat. Nos. 342820, 342821.

Non-Sterile - Natural polypropylene copolymer

Cat. No.362800	-0005	-0015	-0020	-0045
Nom. Cap., ml	0.5	1.5	2.0	4.5
Approx. Brim Cap., ml	0.9	1.9	2.2	4.5
Nom. Weight, g	1.6	1.0	1.5	3.0
No. per Case	1,000	1,000	1,000	1,000
Neck Finish	11	11	11	13
mm A	8.4	8.4	8.4	9.4
mm B	49.0†	47.2†	49.0†	76.9
mm C	45.7	43.2	45.7	74.7
mm D	12.9*	12.9*	12.9*	12.3

Non-Sterile - Amber polypropylene copolymer

Cat. No.362805	-0005	-0020
Nom. Cap., ml	0.5	2.0
Approx. Brim Cap., ml	0.9	2.2
Nom. Weight, g	1.6	1.5
No. per Case	1,000	1,000
Neck Finish	11	11
mm A	8.4	8.4
mm B	49.0†	49.0†
mm C	45.7	45.7
mm D	12.9*	12.9*

†Height, high-profile closure assembled.

**At neck ring, vial body is 10.2.*

NALGENE Closures with Color Coders for Micro Packaging Vials, polypropylene copolymer

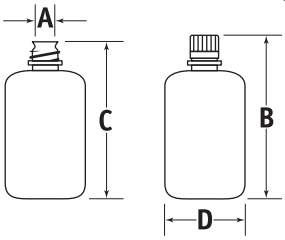
Leakproof, threaded screw closure has no O-ring to fall out or contaminate contents. Color-coded inserts are permanently attached, free of toxic heavy metals and do not come in contact with vial contents.

Non-Sterile

Cat. No.362820	-0110	-0111	-0112	-0113	-0114	-0115	-0116	-0117	-0118	-0119	-1110
Coder Color	No coder	White	Yellow	Orange	Green	Red	Blue	Gold	Purple	Natural	Teal
Neck Finish, mm	11	11	11	11	11	11	11	11	11	11	11
No. per Case	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000

Micro Packaging Vials - Non Sterile - and Closures

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



Product Packaging Information

	Lab pack bottles – closures assembled
"31"	Bulk pack bottles – closures included but not assembled
"32"	Shrink-wrap module packaging
"33"	Bulk pack with closures assembled to the bottles
"34"	Sterile product
"36"	Bottles and closures are bulk packed in separate cartons and must be ordered separately
"38"	Low-particulate bottles – closures assembled

See "Closures for Bulk Packed Bottles" at the end of the Packaging Section

NALGENE Micro Packaging Vial Closure, Low Profile, polypropylene copolymer

NALGENE Low-Profile Closures are offered in a variety of colors for quick identification. Closures are molded of high-purity, low metal-content polypropylene copolymer (PPCO) resin-excellent for PCR reagents. Meet the requirements of FDA CFR21 177.1520, USP Class VI, are noncytotoxic and non-pyrogenic.

Non-Sterile

Cat. No.362821	-0110	-0111	-0112	-0114	-0115	-0116	-0118	-1111	-1112
Closure Color	Natural	White	Yellow	Green	Red	Blue	Purple	Amber	Pink
No. per Case	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Neck Finish, mm	11	11	11	11	11	11	11	11	11

NALGENE Closures with Color Coders for Micro Packaging Vials, polypropylene copolymer, amber

Leakproof, threaded screw closure has no O-ring to fall out of contaminate contents. Color-coded inserts are permanently attached and free of toxic heavy metals, and do not come in contact with vial contents. Closures meet the requirements of light-resistant containers per USP latest edition.

Non-Sterile

Cat. No.362825	-0111	-0112	-0113	-0114	-0115	-0116	-0117	-0118	-0119	-1110	-1111
Coder Color	White	Yellow	Orange	Green	Red	Blue	Gold	Purple	Natural	Teal	Amber
No. per Case	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Neck Finish, mm	11	11	11	11	11	11	11	11	11	11	11

NALGENE Micro Packaging Vial Closures for 4.5ml Vials, polypropylene copolymer

Leakproof, threaded screw closure has no O-ring to fall out or contaminate contents. Meet the requirements of FDA 21CFR 177.1520, USP Class VI, are non-cytotoxic and non-pyrogenic. Available sterile (342826-xxxx).

Non-Sterile

Cat. No.362826	-0110	-0111	-0114
Closure Color	Natural	White	Green
Neck Finish, mm	13	13	13
No. per Case	1,000	1000	1,000

NALGENE Closures with Color Coders for Micro Packaging Vial, high-density polyethylene

Leakproof, threaded screw closure has no O-ring to fall out or contaminate contents. Color-coded inserts are permanently attached and free of toxic heavy metals. Inserts do not come in contact with vial contents. Meet the requirements of FDA 21CFR 177.1520, USP Class VI, are non-cytotoxic and non-pyrogenic.

Non-Sterile

Cat. No.362830	-0110	-0111	-0112	-0113	-0114	-0115	-0116	-0117	-0118	-0119	-1110
Coder Color	No Coder	White	Yellow	Orange	Green	Red	Blue	Gold	Purple	Natural	Teal
Neck Finish, mm	11	11	11	11	11	11	11	11	11	11	11
No. per Case	1,000	1,000	1,000	1000	1,000	1,000	1,000	1,000	1,000	1,000	1000

Non-Sterile

Cat. No.362830	-5110	-5114	-5116	-5118
Coder Color	Lt. Tan	Lt. Green	Light Blue	Lt. Purple
Neck Finish, mm	11	11	11	11
No. per Case	1,000	1,000	1,000	1,000

PETG Diagnostic Bottles

NALGENE Diagnostic Bottles, Sterile, polyethylene terephthalate copolymer with lined white high-density polyethylene closure

Ideal for sterile sampling, storage and shipment of reagents and buffer solutions. Bottles are sterile to 10^{-6} SAL, non-pyrogenic, non-cytotoxic and comply with USP VI guidelines. For bottle dimensions, see Cat. No. 342035.

Sterile

Cat. No.2035	-0005	-0010	-0020
Nom. Cap., ml	5	10	20
Brim Cap., ml	10.2	15.2	27.2
Closure Size, mm	20-415	20-415	20-415
No. per Pkg	20	20	20
No. per Case	100	100	100

NALGENE Diagnostic Bottles, Sterile, polythylene terephthalate copolyester with lined white high-density polyethylene closure

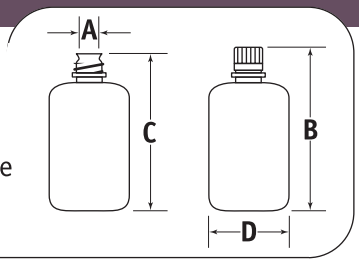
Ideal for sterile sampling, storage and shipment of reagents and buffer solutions. Bottles are sterile to 10^{-6} SAL, non-pyrogenic, non-cytotoxic, and comply with USP VI guidelines.

Sterile

Cat. No.342035	-0005	-0010	-0020
Nom. Cap., ml	5	10	20
Approx. Brim Cap., ml	10.2	15.2	27.2
Nom. Weight, g	6	7	11
Neck Finish, mm	20-415	20-415	20-415
No. per Pkg	100	100	100
No. Per Case	500	500	500
mm A	11.4	11.4	11.4
mm B	45.9	56.1	64.5
mm C	43.9	54.1	62.5
mm D	22.2	23.7	29.7

PETG Diagnostic Bottles

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



Product Packaging Information

	Lab pack bottles – closures assembled	"34"	Sterile product
"31"	Bulk pack bottles – closures included but not assembled	"36"	Bottles and closures are bulk packed in separate cartons and must be ordered separately
"32"	Shrink-wrap module packaging	"38"	Low-particulate bottles – closures assembled
"33"	Bulk pack with closures assembled to the bottles	*See "Closures for Bulk Packed Bottles" at the end of the Packaging Section*	

NALGENE Serum Vials, Crimp Finish, polyethylene terephthalate copolyester

Vials meet USP VI, are non-cytotoxic and non-pyrogenic. Stoppers and caps not included. Packaged in trayless shrink-wrapped modules.

Non-Sterile

Cat. No.322030	-0005	-0010
Nom. Cap., ml	5	10
Approx. Brim Cap., ml	9.8	15
Nom. Weight, g	4.9	6.2
No. in Shrink-Wrap Module	276	252
No. per Case	1,932	1,260
Neck Finish, mm	20	20
mm A	12.7	12.7
mm C	39.5	50.0
mm D	22.3	23.8

NALGENE Serum Vials, Crimp Finish, Sterile, polyethylene terephthalate copolyester

Vials meet USP VI, are non-cytotoxic and non-pyrogenic. Sterile to 10^{-6} SAL. Stoppers and caps not included. Packaged in trayless shrink-wrapped modules.

Sterile

Cat. No.342030	-0003	-0005	-0010	-0020
Nom. Cap., ml	3	5	10	20
Approx. Brim Cap., ml	4.8	9.8	15	27
Nom. Weight, g	2.7	4.9	6.2	10.1
No. in Shrink-Wrap Module	493	276	252	153
No. per Case	3,451	1,932	1,260	612
Neck Finish, mm	13	20	20	20
mm A	7.1	12.7	12.7	12.7
mm C	37	39.5	50.0	58.0
mm D	16.7	22.3	23.8	29.7

NALGENE Serum Vials – Continuous Thread, polyethylene terephthalate copolyester

For use with NALGENE lined (Cat. No. 312158) continuous thread closures. Packaged in trayless shrink-wrap modules. Vials suitable for air shipment and are quality tested to ensure leakproof performance. Vials comply with USP VI, non-cytotoxic, non-pyrogenic.

Non-Sterile

Cat. No.322032	-0005	-0010	-0020
Nom. Cap., ml	5	10	20
Approx. Brim Cap., ml	10.2	15.2	27.2
Nom. Weight, g	5.9	7.2	11.1
No. in Shrink-Wrap Module	276	252	153
No. per Case	1,656	1,260	612
Neck Finish, mm	20-415	20-415	20-415
mm A	11.5	11.5	11.5
mm C	44.1	54.2	64.2
mm D	22.2	23.8	29.7

NALGENE Serum Vials – Continuous Thread, Sterile, polyethylene terephthalate copolyester

For use with NALGENE lined (Cat. No. 342158) continuous thread closures. Packaged in trayless shrink-wrap modules. Vials suitable for air shipment and are quality tested to ensure leakproof performance. Vials comply with USP VI, non-cytotoxic, non-pyrogenic. Sterile to 10^{-6} SAL.

Sterile

Cat. No.342032	-0005	-0010	-0020
Nom. Cap., ml	5	10	20
Approx. Brim Cap., ml	10.2	15.2	27.2
Nom. Weight, g	5.9	7.2	11.1
No. in Shrink-Wrap Module	276	252	153
No. per Case	1,656	1,260	612
Neck Finish, mm	20-415	20-415	20-415
mm A	11.5	11.5	11.5
mm C	44.1	54.2	64.2
mm D	22.2	23.8	29.7

NALGENE Serum Vials – Continuous Thread, Sterile, Translucent Amber polyethylene terephthalate copolyester

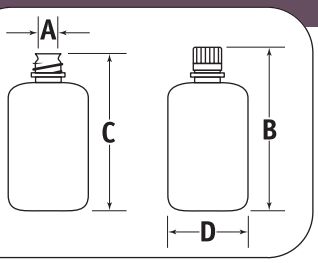
For use with NALGENE lined (Cat. No. 342158) continuous thread closures. Packaged in trayless shrink-wrap modules. Sterile to 10^{-6} SAL.

Sterile

Cat. No.342033	-0010
Nom. Cap., ml	10
Approx. Brim Cap., ml	15.2
Nom. Weight, g	7.2
No. in Shrink-Wrap Module	252
No. per Case	1,260
Neck Finish, mm	20-415
mm A	11.5
mm C	54.2
mm D	23.8

PETG Serum Vials - Closures

A = Neck I.D.
B = Height with Closure
C = Height without Closure
D = O.D.



PETG Serum Vials - Closures

Product Packaging Information

Lab pack bottles – closures assembled
"31" Bulk pack bottles – closures included but not assembled
"32" Shrink-wrap module packaging
"33" Bulk pack with closures assembled to the bottles
"34" Sterile product
"36" Bottles and closures are bulk packed in separate cartons and must be ordered separately
"38" Low-particulate bottles – closures assembled
See "Closures for Bulk Packed Bottles" at the end of the Packaging Section

NALGENE Closures, Continuous Thread Unlined – for NALGENE Continuous-Thread Serum Vials, high-density polyethylene

Closures mate to PETG Serum Vials with continuous thread. Stoppers and caps not included.

Non-Sterile

Cat. No.	Color	Nom. Weight, g	No. per Case	Finish	O.D., mm	Height, mm
312157-0021	White	1.3	2,000	20-415	22.1	14.2
312157-0022	Black	1.3	2,000	20-415	22.1	14.2

NALGENE Closure, Continuous Thread Lined* – for NALGENE Continuous-Thread Serum Vials, high-density polyethylene

Three-ply co-extruded liner: formed low-density polyethylene core between two facings of solid HDPE. A rubber stopper is not required.

Non-Sterile

Cat. No.	Color	Nom. Weight, g	No. per Case	Neck Finish, mm	O.D., mm	Height, mm
312158-0021	White	1.4	2,000	20-415	22.1	14.2
312158-0022	Black	1.4	2,000	20-415	22.1	14.2

**Liner is TRI-SEAL F-422*

NALGENE Closure, Continuous Thread Lined* – for NALGENE Continuous-Thread Serum Vials, high-density polyethylene

Sterile to 10^{-6} SAL. Three-ply co-extruded liner: formed low-density polyethylene core between two facings of solid HDPE. A rubber stopper is not required. Vials (Cat. No. 342032) sold separately.

Sterile

Cat. No.342158	-0021	-0022	-0023	-0024	-0025	-0026
Color	White	Black	Yellow	Green	Red	Blue
Nom. Weight, g	1.4	1.4	1.4	1.4	1.4	1.4
No. per Case	2,000	2,000	2,000	2,000	2,000	2,000
Neck Finish	20-415	20-415	20-415	20-415	20-415	20-415
O.D., mm	22.1	22.1	22.1	22.1	22.1	22.1
Height, mm	14.2	14.2	14.2	14.2	14.2	14.2

**Liner is TRI-SEAL F-422*

Torque Wrench Fittings

Torque Wrench Fittings for Polypropylene Closures, epoxy

Fit only NALGENE PP closures. Assure accurate torque readings. See Technical Data Section for application torque specifications.

Cat. No.	Fits Drive, in.	Fits NALGENE PP Closures, Size	No. per Case
2195-0010	1/4	11 mm (Low Profile)	1
2195-0011	1/4	11 mm (High Profile)	1
2195-0013	1/4	13-415	1
2195-0020	1/4	20-415	1
2195-0024	1/4	24-415	1
2195-0028	1/4	28-415	1
2195-0038	1/4	38-415	1
2195-0043	1/4	43-415	1
2195-0048	1/4	48-415	1
2195-0053	1/4	53-415	1
2195-0063	3/8	63-415	1
2195-0153	1/4	53B	1
2195-0183	3/8	83B	1
2195-0438	1/4	38-430	1

Torque Wrench Fittings for High-Density Polyethylene Closures, epoxy

Fit only NALGENE HDPE closures. See Technical Data Section for application torque specifications.

Cat. No.	Fits Drive, in.	Fits NALGENE HDPE Closures, Size	No. per Case
2195-1013	1/4	13-415	1
2195-1020*	1/4	20-415	1
2195-1021†	1/4	20-415	1
2195-1024	1/4	24-415	1
2195-1028	1/4	28-415	1
2195-1038	1/4	38-415	1
2195-1438	1/4	38-430	1
2195-1043	1/4	43-415	1
2195-1048	1/4	48-415	1
2195-1053	1/4	53-415	1
2195-1063	3/8	63-415	1
2195-1153	1/4	53B	1
2195-1183	3/8	83B	1

**30ml PETG Square Media Bottle*

†PETG Serum/Diagnostic Bottles

Torque Wrench Fittings for Tefzel Closures, epoxy

Fits only NALGENE Tefzel ethylene-tetrafluoroethylene (ETFE) Closures. See Technical Data Section for application torque specification.

Cat. No.	Fits Drive, in.	Fits NALGENE Tefzel Closures, Size	No. per Case
2195-2020	1/4	20-415	1
2195-2024	1/4	24-415	1
2195-2028	1/4	28-415	1
2195-2033	1/4	33-415	1
2195-2038	1/4	38-415	1
2195-2438	1/4	38-430	1
2195-2043	1/4	43-415	1
2195-2048	1/4	48-415	1
2195-2053	1/4	53-415	1

Torque Wrench Fittings for Perfluoroalkoxy Closures, epoxy

Fits only NALGENE Teflon PFA Closures. Fittings have 1/4-in. socket for torque wrenches. See Technical Data Section for application torque specifications.

Cat. No.	Fits Drive, in.	Fits NALGENE PFA Closures, Size	No. per Case
2195-3020	1/4	20-415	1
2195-3438	1/4	38-430	1

Torque Wrench Fittings for Biotainer® Closures, epoxy

See Technical Data Section for application torque specifications.

Cat. No.	Fits Drive, in.	Fits Closure Size	No. per Case
2595-3038	1/4	38	1
2595-9048	1/4	48	1

Torque Wrenches

Torque Wrenches

Proper torquing of NALGENE closures is critical to leakproof sealing. These wrenches can be used to confirm capping machine settings, on-line inspection and to check torques. Must be used with NALGENE torque wrench fittings. Be sure to order fittings that match closure resin.

Cat. No.	Fits Drive, in.	Torque Range, in.-lbs.	No. per Case
2195-6169	1/4	0-75	1
2195-6177*	3/8	0-250	1

**Use with torque fittings 63mm and 83B.*

Heat-Shrink Bands for PETG Square Media Bottles

Product Packaging Information

	Lab pack bottles – closures assembled
"31"	Bulk pack bottles – closures included but not assembled
"32"	Shrink-wrap module packaging
"33"	Bulk pack with closures assembled to the bottles
"34"	Sterile product
"36"	Bottles and closures are bulk packed in separate cartons and must be ordered separately
"38"	Low-particulate bottles – closures assembled

See "Closures for Bulk Packed Bottles" at the end of the Packaging Section

Heat-Shrink Bands for NALGENE PETG Media Bottles, polyvinyl chloride

The heat-shrink bands found on NALGENE® Sterile PETG Square Media Bottles (2019-XXXX) are now available separately. These bands provide a tamper-resistant seal to ensure the integrity of the bottle contents. Simply apply the recommended application torque for NALGENE closures, and slide the heat-shrink band over the closure and bottle neck; heat the band to shrink and secure contents. Bands are gamma stable and include a perforated "tear strip" feature for easy removal. They are available in 4 sizes to mate with NALGENE PETG Square Media Bottles. Packed 1,000 per case (two zipper bags of 500 each).

Cat. No.312160	-0200	-0240
Fits NALGENE PETG Square Media Bottle	30ml PETG Bottle with 20-415 HDPE Closure	60ml PETG Bottle with 24-415 HDPE Closure
Bottle/Closure Cat. No.	2019-0030, 3x202x-0030	2019-0060, 3x202x-0060
Torque Wrench Fittings	2195-1020	2195-1024
Application Torque	10-14 in.-lb	12-17 in.-lb

Cat. No.312160	-0384	-0530
Fits NALGENE PETG Square Media Bottle	125ml-1000ml PETG Bottles with 38-430 HDPE Closure	2000ml PETG Bottle with 53B HDPE Closure
Bottle/Closure Cat. No.	2019-0125, 2019-0250, 2019-0500, 2019-1000, 3x202x-xxxx	2019-2000, 3x202x-2000
Torque Wrench Fittings	2195-1438	2195-1153
Application Torque	27-33 in.-lb	38-53 in.-lb

Replacement Closures

Biotainer® Replacement Closures, polypropylene with silicone liner

For 1L, 2L, 5L, 10L and 20L polycarbonate Biotainer bottles and carboys.

Cat. No.362515	-0480
Closure size, mm	48
Liner Material	Silicone
No. per Case	300

3-Ported Closures For Biotainers®, polypropylene; silicone liner

Radiation-stabilized 48mm PP closure with 3 ports and removable silicone liner. Fits all Biotainer products with 48mm neck. Use for filling/venting operations. Ports have tubulations on inside and outside of closure for attachment of tubing. Two 8mm fluid ports accept 6-7mm (1/4 in.) I.D. tubing. Vent port accepts 4.5mm (3/16 in.) tubing.

Cat. No.	Finish	Port I.D., in.	No. per Case
2560-0489	48	(2) 1/4", (1) 3/16"	4

Bottle Neck Size	Description	Replacement Part No.	Pkg. Qty.
53B	Screw Closure, White HDPE w/TPE gasket	71-2151-0053	12
83B	Screw Closure, HDPE	71-2151-0083	2
53B	Screw Closure, White PP	71-2160-0530	12
83B	Screw Closure, White PP	71-2160-0830	2

For use with Cat. No.	Replacement Description	Part No.	Pkg. Qty.
2162-0830	TPE Gasket for 83B Closure	71-2162-1830	5
2240-All Sizes	53-mm White PP Cap w/strap for Jerrican	71-2240-1053	10

INSPECTION AND TESTING

Standard quality assurance procedures for NALGENE® bottles and closures

NALGENE bottles and closures are engineered, manufactured and sold to work together as a system. These procedures are followed before any product is released to the marketplace.

Receiving inspection

These checks are currently performed on incoming lots of material as noted below. All tests are based on NALGENE container historical data and information supplied by our resin manufacturers.

I. Resin Flow
Melt Flow Indexes are performed on selected lots of incoming resin per ASTM D1238.

II. Visuals
A Visual Comparison of each lot of resin is performed to assure that there is limited lot-to-lot color variation during manufacturing runs. Each lot's granular size and configuration is also checked to ensure that uniform molding will be accomplished.

Molding inspection

Molding inspection is performed in two major steps. Step one is the *First Piece Approval* stage. Manufacturing must obtain First Piece Approval from Quality Control before any parts can be assigned to stock.

Step two is the critical *In-Process Inspection*. Parts are continually checked at specified intervals during the entire production run. Inspection criteria for the above steps are:

Bottles and Closures
First Piece/In-Process

- Physical defects/appearance
- Molding integrity/completeness of threads and sealing ring (closure)
- Standard NALGENE container Leak Test
- Wall thickness (bottle only)
- Molding integrity of threads and neck chamfer (bottles)
- Dimensional checks

Leak Testing

The standard NALGENE container leak test for bottles

NOTE that the Standard NALGENE container Leak Tests are performed with WATER. The same tests, using other liquids, may not yield the same results. Thermo Fisher Scientific advises customers to test NALGENE bottles and closures under the conditions of their planned application to ensure safe usage of the product.

Warning: Do not use NALGENE bottles, carboys or other containers under pressure or vacuum, except those products that are specifically designed, specified and tested for these applications. The application of pressure or vacuum to products not designed for such use may result in failure of the products, damage leading to property and/or personal injury.

Production bottles are randomly selected. Bottles are filled with a sufficient volume of water. Then standard test closures, with fittings to allow pressure application, are screwed onto the bottles at specified torque values. The bottles are inverted, so that water covers the junctures of the bottles and closures. Air pressure of 2 psig is applied for 2 minutes. The pressure is then released. The closures are removed and then inspected. If no water is found on the closure's threads, the bottles are judged to be leakproof. This protocol applies to bottles with closures 83-mm or smaller. For 70-, 100- and 120-mm closures, see below.

The standard leak test for closures*

In a complementary procedure, closures are randomly selected from a production run. Standard test bottles are filled with water. The selected closures are applied to the bottles at specified torque values, and are inverted. Fittings are attached to the bottoms of the test bottles.

Air pressure of 2 psig is applied for 2 minutes. The pressure is then released. The closures are removed and then inspected. If no water is found on the closure's threads, the bottles are judged to be leakproof. This protocol applies to bottles with closures 83-mm or smaller.

*Leak testing is performed at higher psig levels when required for specific product claims.

To test bottles, carboys and other containers with large closures

A standard test closure (70-, 100- or 120-mm) is applied onto a container filled with water at specified torque values. The container is placed on its side for 15 minutes. If no water escapes, the container is leakproof. 100- and 120-mm closures are tested in a complementary procedure using standard test containers.

The accept/reject criteria for the NALGENE container program is "0" accept and "1" reject. When a defect is discovered, all parts molded from the time of the last "Acceptable" inspection are held until molding variances are corrected. These parts are then inspected and disposition is made based on the results.

Closure application torques

Torque must be properly applied in measured amounts to NALGENE® closures to assure leakproof sealing. To maintain the closure/bottle seal and minimize back-off during shipment, NALGENE closures should be tightly applied using the guidelines provided.

NOTE: Bottle and closure threads must be dry when torque is applied to the system.

Because different applications will require different torques for the same closure/bottle system, it is recommended that users determine these values on their own filling and capping lines. With automatic capping machines, application torque must be correlated to removal torque using torque wrenches.*

*For details, refer to the Handbook of Package Engineering, Third Edition by Joseph F. Hanlon.

Recommended application torques for NALGENE closures

Closure size, mm	Minimum torque		Maximum torque[1]	
	in.-lb.	cm-kg	in.-lb.	cm-kg
11	2	3	3	4
13-415	5	6	7	8
20-415	10	11	14	16
24-415	12	13	17	19
28-415	16	18	22	25
33-415	20	23	28	32
38*	27	31	33	38
38-415	22	25	31	35
38-430	27	31	33	38
43-415	28	32	39	44
48-415	30	34	42	48
48*	30	34	42	48
53-415	33	38	46	52
53B	38	43	53	60
63-415	40	46	56	64
70	44	50	62	71
83B	60	69	84	96

[1]This number ***should not be exceeded***. It is strongly recommended that users verify these torque numbers, based on their applications. For more information, contact Technical.nalgene@thermofisher.com

Biotainer Closures

APPLICATION NOTES

Light transmission through NALGENE bottles

Many chemicals, reagents and media components are light sensitive. Actinic light, radiation capable of producing a photochemical reaction, is often the concern. In practice, this usually means "near" ultra-violet (UV) or blue visible light. The U.S. Pharmacopeia current edition, <661>, Containers, Light Transmission, states that a container intended to provide protection from light, or offered as a "light-resistant" container, must comply with requirements for maximum light transmission. USP criteria state that the container cannot allow more than 10% light transmission for any wavelength between 290 and 450 nanometers, measured every 20 nm. (For reference, UV is usually defined as 200nm to ~ 375 nm; 400 nm is blue light.) Where testing has been performed, it is noted in the product description.

NOTE: Cat. No. 322021 Translucent Amber PETG Bottles meet these requirements as measured through the side walls of the bottles.

For details on NALGENE light–resistant containers, contact NALGENE Technical Support at 1-800-625-4327 (1-585-586-8800 outside of North America), Email: Technical.nalgene@thermofisher.com

Removing RNase or DNase from plastic containers

Most NALGENE containers can be cleansed of these nucleotide contaminants. Please contact NALGENE Technical Support at 1-800-625-4327 or visit www.nalgene.com for more information.

Sterilization

Autoclaving (121°C, 15 psig for 20 minutes using a slow exhaust cycle for best results) – Clean and rinse item with distilled water before autoclaving. (Must COMPLETELY disengage threads of closure before autoclaving.) Certain chemicals which have no appreciable effect on resins at room temperature may cause deterioration at autoclaving temperatures unless removed with distilled water beforehand. Sterilizing reduces mechanical strength.

- Gas–Ethylene oxide formaldehyde.
- Dry heat (160°C, 120 minutes).
- Disinfectants–Benzalkonium chloride, formalin, ethanol, etc.
- Radiation–gamma irradiation

RESINS

Polyolefins

Polyolefins are high molecular weight hydrocarbons. They include low-density and high-density polyethylene, polypropylene copolymer and polypropylene. All are break-resistant, nontoxic, and non-contaminating. These are the only plastics lighter than water. They easily withstand exposure to nearly all chemicals at room temperature for up to 24 hours. Strong oxidizing agents eventually cause embrittlement. All polyolefins can be damaged by long term exposure to ultraviolet light.

Polyethylene* The polymerization of ethylene results in an essentially straight-chain, high molecular weight hydrocarbon. The polyethylenes are classified according to the relative degree of branching (side chain formation) in their molecular structures, which can be controlled with selective catalysts.

Like other polyolefins, the polyethylenes are chemically inert. Strong oxidizing agents will eventually cause oxidation and embrittlement. They have no known solvent at room temperature. Aggressive solvents will cause softening or swelling, but these effects are normally reversible.

Low-density polyethylene* (LDPE) has more extensive branching, resulting in a less compact molecular structure.

High-density polyethylene* (HDPE) has minimal branching, which makes it more rigid and less permeable than LDPE.

Polypropylene* (PP) is similar to polyethylene, but each unit of the chain has a methyl pendant group attached. It is translucent, autoclavable, and has no known solvent at room temperature. It is slightly more susceptible than polyethylene to strong oxidizing agents. It offers the best stress-crack resistance of the polyolefins. Products made of polypropylene are brittle at ambient temperature and may crack or break if dropped from benchtop height.

Polypropylene copolymer* (PPCO) is an essentially linear copolymer with repeated sequences of ethylene and propylene. It combines some of the advantages of both polymers. PPCO is autoclavable, and offers much of the high-temperature performance of polypropylene. It also provides some of the low-temperature strength and flexibility of polyethylene.

Engineering Resins

These resins offer exceptional strength and durability in demanding applications. For specific uses, they are superior to the polyolefins.

Polyethylene terephthalate G copolymer* (PETG/PET) are similar to many other engineering resins. However, their glass-like clarity, toughness and excellent gas-barrier properties make them an outstanding choices for storing biologicals. Tests have shown PETG/PET to be biologically equivalent to, or better than Type 1 borosilicate glass bottles for cell culture applications. In tests using a wide variety of cell lines, PETG/PET was determined to be non-cytotoxic, and media stored in PETG/PET bottles demonstrated proliferative and morphological characteristics comparable to control media. In fact, the PETG/PET bottles allowed growth of good monolayers directly on the surface of the bottle. PETG/PET, can be sterilized with radiation or compatible chemicals but cannot be autoclaved. Chemical resistance is fair.

Polystyrene* (PS) is rigid and non-toxic, with excellent dimensional stability and good chemical resistance to aqueous solutions, but limited resistance to solvents. This glass-clear material is commonly used for disposable laboratory products. Products made of polystyrene are brittle at ambient temperature and may crack or break if dropped from benchtop height.

Polycarbonate* (PC) is window-clear, amazingly strong, and rigid. It is autoclavable, non-toxic and the toughest of all thermoplastics.

PC is a special type of polyester in which dihydric phenols are joined through carbonate linkages. These linkages are subject to chemical reaction with bases and concentrated acids, hydrolytic attack at elevated temperatures (e.g., during autoclaving), and make PC soluble in various organic solvents. For many applications, the transparency and unusual strength of PC offset these limitations.

*Meets the requirements of the Food Additives Amendment of the Federal Food, Drug and Cosmetic Act.

Specialty Resins

High-impact polystyrene (HIPS) is produced by introducing elastomers into the basic polystyrene polymer. The resulting opaque material offers good dimensional stability, impact strength and rigidity. HIPS is readily molded to precise tolerances. It can be combined with other plastic parts to make units which are attractive and tough.

Thermoplastic elastomer* (TPE) is a type of polyolefin which, due to structure, molecular weight and chemistry, can be molded into autoclavable parts which are rubber-like in application and performance.

Fluorocarbons

Typical fluorocarbons are Teflon tetrafluoroethylene (TFE*), Teflon fluorinated ethylene propylene (FEP*) and Teflon perfluoroalkoxy (PFA*). All have remarkable chemical resistance.

perfluoroalkoxy* (PFA) is translucent and slightly flexible. It has the widest temperature range of the fluoropolymers–from -270˚C to +250˚C with superior chemical resistance across the entire range. Compared to TFE at +277˚C, it has better strength, stiffness and creep resistance. PFA also has a low coefficient of friction, outstanding antistick properties and is flame-resistant.

Fluorinated ethylene propylene* (FEP) is translucent, flexible and feels heavy because of its high density. It resists all known chemicals except molten alkali metals, elemental fluorine and fluorine precursors at elevated temperatures. It should not be used with concentrated perchloric acid. FEP withstands temperatures from -270˚C to +205˚C, and may be sterilized repeatedly by all known chemical and thermal methods. It can even be boiled in nitric acid.

Ethylene-tetrafluroethylene* (ETFE) is white, translucent and slightly flexible. It is a close analog of PFA and FEP fluorocarbons, an ethylene tetrafluoroethylene copolymer. ETFE shares the remarkable chemical and temperature resistance of TFE and FEP, and has even greater mechanical strength and impact resistance.

* Teflon is a registered trademark of DuPont.

Biological Properties of Plastic

In general, we consider most of the plastics used in NALGENE® containers to be biologically inert. For example, polyethylenes, polypropylene, polycarbonate, PETG, PET and FEP have been shown to be non-toxic to cell cultures. Distilled water for preparing culture media is often collected and stored in polyethylene containers.

Resins that meet CFR, title 21

Products made from the following resins meet the requirements of 21CFR section of the Food Additives Amendment of the Federal Food, Drug and Cosmetic Act.

FEP	LDPE/ULLDPE
EVA	PC
HDPE, natural	PET
HDPE, opaque amber	PETG
HDPE, opaque white	PP
HDPE, translucent amber	PPCO
HIPS	PS

The statements, information and data published in this literature are, to the best of our knowledge, accurate, reliable and true. But because Thermo Fisher Scientific has no control of the use to which others may put these products, we do not guarantee that the same results as those described herein will be obtained under your specifications. Each user should test the products listed in this catalog under their own conditions to determine the products suitability for their own particular application.

Technical Data -- NUNC™ and Thermo Scientific Brand Products

For detailed technical information on the NUNC brand products found in this catalog, visit www.nuncbrand.com or contact Technical.nunc@thermofisher.com.

For detailed technical information on the Thermo Scientific brand products found in this catalog, visit www.thermo.com/microtiter or contact Technical.nalgene@thermofisher.com.

Physical Properties

	Max. Use Temp. (˚C)	Brittle-ness Temp. (˚C)[9]	Trans-parency	Microwav-ability[1]	Sterilization[3]				
					Auto-claving	Gas	Dry Heat	Radi-ation	Disinfec-tants
ETFE	150	-104	Transluc	Yes	Yes	Yes	Yes	Yes	Yes
FEP	205	-270	Transluc	Marginal[2]	Yes	Yes	Yes	No	Yes
HDPE	120	-100	Transluc	No	No	Yes	No	Yes	Yes
LDPE	80	-100	Transluc	Yes	No	Yes	No	Yes	Yes
PC	135	-135	Clear	Marginal[2]	Yes[4]	Yes	No	Yes	Yes
PET	65	-60	Clear	–	No	Yes	No	Yes	Some
PETG	70	-40	Clear	Marginal[2]	No	Yes	No	Yes	Yes
PFA	260	-270	Transluc	Yes	Yes	Yes	Yes	No	Yes
PP	135	0	Transluc	Yes	Yes	Yes	No	No	Yes
PPCO	121	-40	Transluc	Marginal[2]	Yes	Yes	No	No	Yes
PS	90	20	Clear	No	No	Yes	No	Yes	Some
TPE	121	-50	Opaque	Yes	Yes	Yes	No	Yes	Some

[1] Ratings are based on 5-minute tests at 100% power (600 watts) of exposed, empty container.

CAUTION: Do not exceed Max. Use Temp., above, or expose containers to chemicals which during heating may cause attack of the plastic or be rapidly absorbed.

[2] Plastic will absorb heat.

[3] Sterilization:

- Autoclaving (121˚C, 15 psig for 20 minutes for best results use a slow exhaust cycle) – Clean and rinse item with distilled water before autoclaving. (Must COMPLETELY disengage threads of closure before autoclaving.) Certain chemicals which have no appreciable effect on resins at room temperature may cause deterioration at autoclaving temperatures unless removed with distilled water beforehand.
- Gas–Ethylene oxide, formaldehyde.
- Dry heat (160˚C, 120 minutes).
- Disinfectants–Benzalkonium chloride, formalin, ethanol, etc.
- Radiation–gamma irradiation

[4] Sterilizing reduces mechanical strength.

[5] "Yes" indicates the resin has been determined to be non-cytotoxic, based on USP and ASTM biocompatibility testing standards utilizing MEM elution techniques on a WI38 human diploid lung cell line.

[6] Resins meet requirements of 21CFR section of Food Additives Amendment of Federal Food and Drug Act. End users are responsible for validation of compliance for specific container configurations used in conjunction with their particular packaging applications.

[7] Acceptable for:

- Non-acid, aqueous products; may contain salt, sugar or both (pH above 5.0)
- Dairy products and modifications – oil-in-water emulsions, high or low fat
- Moist bakery products with surface containing no free fat or oil
- Dry solids with the surface containing no free fat or oil (no end-test required) and under all conditions of use as described in Table 2 of FDA Regulation 21CFR 177.1520 except for condition A – high temperature heat sterilization (e.g. over 100˚C/212˚F)

Specific Gravity	Flexibility	Permeability (approx.) cc-mil/ 100 in² – 24 hr. - atm N_2	O_2	CO_2	Water Absorption (%)	Non-cytotoxicity[5]	Suitability for Food and Bev. Use[6] Rating	Reg. Part 21CFR
1.70	rigid	30	100	250	0.03	Yes	Yes	177.1380
2.15	excel	320	750	2,200	<0.01	Yes	Yes	177.1550
0.95	rigid	42	185	580	<0.01	Yes	Yes[7]	177.1520
0.92	excel	180	500	2,700	<0.01	Yes	Yes[7]	177.1520
1.20	rigid	50	300	1,075	0.35	Yes	Yes	177.1580
1.20	mod	0.7-1.0	3-9	15-20	0.25	Yes	Yes	177.1315
1.27	mod	10	25	125	0.15	Yes	Yes[8]	177.1315
2.17	excel	291	881	2,260	<0.02	Yes	Yes	177.1550
0.90	rigid	48	240	800	<0.02	Yes	Yes	177.1520
0.90	mod	45	200	650	<0.02	Yes	Yes	177.1520
1.05	rigid	20-25	300-400	1,000-1,500	0.05	Yes	Yes	177.1640
0.90	excel	31-145	85-646	900-8634	0.05-1.0	Yes	Yes	177.2600

[8] Acceptable for:
- Alcoholic foods containing not more than 15% (by volume) alcohol; fill and storage temperatures not to exceed 49°C
- Non-alcoholic foods of hot fill to not exceed 82°C and 49°C in storage
- Not suitable for carbonated beverages or beer or packaging food requiring thermal processing.

[9] The brittleness temperature is the temperature at which an item made from the resin may break or crack if dropped. This is not the lowest use temperature if care is exercised in handling.

Technical Data -- NUNC™ and Thermo Scientific Brand Products

For detailed technical information on the NUNC brand products found in this catalog, visit www.nuncbrand.com or contact Technical.nunc@thermofisher.com.

For detailed technical information on the Thermo Scientific brand products found in this catalog, visit www.thermo.com/microtiter or contact Technical.nalgene@thermofisher.com.

ENVIRONMENTAL

Environmental stress-cracking

Environmental stress-cracking is the failure of a plastic material in the presence of certain types of chemicals. This failure is not a result of chemical attack. The simultaneous presence of three factors causes stress-cracking: tensile stress, a stress-cracking agent and inherent susceptibility of the plastic to stress-cracking.

Common stress-cracking agents are detergents, surface active chemicals, lubricants, oils, ultra-pure water and plating additives such as brighteners and wetting agents. Relatively small concentrations of stress-cracking agent may be sufficient to cause cracking.

Mixing and/or dilution of certain chemicals may result in reactions which produce heat which can cause product failure. Pre-test your specific usage and always follow correct lab safety procedures.

ATTENTION: Several polymers may have excellent resistance to various flammable organic chemicals and solvents. Regulations such as OSHA CFR 29 1910.106 for flammable and combustible materials, or other local regulations, may restrict the volumes of solvents which may legally be stored in an enclosed area.

CAUTION: Do not store strong oxidizing agents in plastic containers except those made of FEP or PFA. Prolonged exposure causes embrittlement and failure. While prolonged storage may not be intended at time of filling, a forgotten container will fail in time and result in leakage of contents. Do not place any plastic container in a flame.

Recycling NALGENE products

The recycling process involves sorting plastic products by resin type for reclamation and using them to produce high-quality recycled resins for use as raw material in new products.

To make that easier, the Society of the Plastics Industry (SPI) has developed a system to identify the types of plastics used in plastic containers. These codes immediately identify the resin to recyclers. Each resin NALGENE uses has been assigned a specific number.

These codes have been molded into the base of all NALGENE injection- and extrusion-molded bottles and containers 500-ml and larger.

CAUTION: It is not intended to imply that the bottle may be recycled or disposed of in the general waste stream after use. Follow appropriate decontamination and disposal procedures when the bottle has been in contact with hazardous or infectious materials.

Proposition 65 and SARA compliance

All the resins on this list comply with the current California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) and SARA (Superfund Amendment Reauthorization Act) Title III Section 313 chemical lists.

The resins do not require a warning label for Proposition 65. There are no reportable toxic chemicals used in these resins requiring SARA Title III Section 313 notification.

ETFE	ethylene-tetrafluoroethylene
FEP	fluorinated ethylene propylene
HDPE	high-density polyethylene
HIPS	high-impact polystyrene
LDPE	low-density polyethylene
PC	polycarbonate (such as LEXAN[1])
PET	polyethylene terephthalate
PETG	polyethylene terephthalate copolyester, glycol modified
PFA	perfluoroalkoxy
PP	polypropylene
PPCO	polypropylene copolymer
PS	polystyrene
TPE	thermoplastic elastomer

[1] Registered trademark of General Electric Co.

CHEMICAL RESISTANCE

Effects of chemicals on plastics

Chemicals can affect the strength, flexibility, surface appearance, color, dimensions or weight of plastics. The basic modes of interaction which cause these changes are:
(1) chemical attack on the polymer chain, with resultant reduction in physical properties, including oxidation; reaction of functional groups in or on the chain; and depolymerization; (2) physical change, including absorption of solvents, resulting in softening and swelling of the plastic; permeation of solvent through the plastic; dissolution in a solvent; and (3) stress-cracking from the

interaction of a "stress-cracking agent" with molded-in or external stresses. Also see "Chemical Resistance Classification."

Mixing and/or dilution of certain chemicals in NALGENE® containers can be potentially dangerous. The reactive combination of compounds of two or more classes may cause a synergistic or undesirable chemical effect. Other factors affecting chemical resistance include temperature, pressure and internal or external stresses (e.g. centrifugation), length of exposure and concentration of the chemical. As temperature increases, plastic's resistance to chemical attack decreases.

Interpretation of Chemical Resistance

This chemical resistance information should be used only as a guide. Because so many factors can affect the chemical resistance of a given product, you should test under your conditions. If any doubt exists about specific applications of NALGENE and NUNC products, please call:

NALGENE and NUNC Technical Support (North America) at 1-800-625-4327
E-mail: Technical.nalgene@thermofisher.com

Outside of North America, call +1-585-586-8800,
E-mail: Technical.nunc@thermofisher.com

See the back cover of this catalog for local contact information.

Chemical Resistance Summary

Classes of Substances

At 20˚C

	ETFE	FEP/PFA	FLPE	HDPE	LDPE	PC	PET	PETG	PP/PPCO	PS
Acids, dilute or weak	E	E	E	E	E	E	E	G	E	E
Acids,* strong and concentrated	E	E	G	G	G	N	F	N	G	F
Alcohols, aliphatic	E	E	E	E	E	G	E	G	E	G
Aldehydes	E	E	G	G	G	F	G	G	G	F
Bases	E	E	F	E	E	N	F	N	E	E
Esters	G	E	G	G	G	N	G	F	G	N
Hydrocarbons, aliphatic	E	E	E	G	F	G	E	G	G	F
Hydrocarbons, aromatic	G	E	E	N	N	N	G	N	N	N
Hydrocarbons, halogenated	G	E	G	N	N	N	G	N	N	N
Ketones	G	E	G	N	N	N	G	N	N	N
Oxidizing Agents, strong	E	E	F	F	F	F	F	F	F	G

*Except for oxidizing acids; for oxidizing acids, see "Oxidizing Agents, strong."

Quickly and easily search our extensive chemical resistance database at: www.NALGENElabware.com.

Chemical Resistance Classification:

E 30 days of constant exposure cause no damage. Plastic may even tolerate for years.

G Little or no damage after 30 days of constant exposure to the reagent.

F Some effect after 7 days of constant exposure to the reagent. Depending on the plastic, the effect may be crazing, cracking, loss of strength or discoloration. Solvents may cause softening, swelling and permeation losses with LDPE, HDPE, PP, and PPCO. The solvent effects on these four resins are normally reversible; the part will usually return to its normal condition after evaporation.

N Not recommended for continuous use. Immediate damage may occur. Depending on the plastic, the effect will be a more severe crazing, cracking, loss of strength, discoloration, deformation, dissolution or permeation loss.

Resin Codes:

EVA	ethylene vinyl acetate
EVOH	ethylene vinyl alcohol
ETFE	ethylene-tetrafluoroethylene
FEP	fluorinated ethylene propylene
HDPE	high-density polyethylene
HIPS	high-impact polystyrene
LDPE	low-density polyethylene
PC	polycarbonate (such as LEXAN[1])
PET	polyethylene terephthalate
PETG	polyethylene terephthalate copolyester, glycol modified
PFA	PFA (perfluoroalkoxy)
PP	polypropylene
PPCO	polypropylene copolymer
PS	polystyrene
TPE	thermoplastic elastomer

For the most current and complete chemical resistance information, search our extensive online database at www.NALGENElabware.com
Click on: Technical Data, Chemical Resistance.

E – No damage after 30 days of constant exposure.

G – Little or no damage after 30 days of constant exposure.

F – Some effect after 7 days of constant exposure.

N – Immediate damage may occur. Not recommended for continuous use.

*– Mercury will permeate through all the resins listed but only chemically attack those resins not listed as EE.

First letter of each pair applies to conditions at 20˚C; the second to those at 50˚C. At 20˚C -> EG <- at 50˚C

CHEMICAL	ETFE	FEP	FLPE	HDPE	LDPE	PC	PET	PETG	PFA	PP	PPCO	PS
Acetaldehyde, pure	E E	E E	G F	GF	GN	NN	- -	- -	EE	GN	GN	NN
Acetamide, saturated	E E	E E	GG	E E	E E	NN	EG	- -	EE	E E	E E	EE
Acetic Acid, 5%	E E	E E	E E	E E	E E	EG	EN	FN	EE	E E	E E	EG
Acetic Acid, 50%	E E	E E	E G	E G	G F	GF	EG	NN	EE	E E	E E	GG
Acetic Anhydride, pure	E E	E E	F F	F F	N N	NN	- -	- -	EE	G F	G F	NN
Acetone, pure	GN	E E	F F	N N	N N	NN	F N	NN	EE	GN	GG	NN
Acetonitrile, pure	E E	E E	E E	E E	E E	NN	- -	- -	EE	EG	F N	NN
Acrylonitrile, pure	EG	E E	E E	E E	E E	NN	E -	- -	EE	F N	F N	NN
Adipic Acid, pure	E E	E E	E E	E E	E G	E E	- -	- -	EE	E E	E E	EE
Alanine, pure	E E	E E	E E	E E	E E	E E	- -	- -	EE	E E	E E	EE
Allyl Alcohol, pure	E E	E E	E E	E E	E E	GG	EN	- -	EE	E E	E E	GF
Aluminum Salts, pure	E E	E E	E E	E E	E E	EG	GF	- -	EE	E E	E E	EG
n-Amyl Acetate, pure	E E	E E	E E	E G	G F	NN	E -	- -	EE	G F	G F	NN
Amino Acids, pure	E E	E E	E E	E E	E E	E E	- -	- -	EE	E E	E E	EE
Ammonia, pure	E E	E E	F F	E E	E E	NN	NN	- -	EE	E E	E E	EG
Ammonium Acetate, saturated	E E	E E	E E	E E	E E	GG	- -	- -	EE	E E	E E	EE
Ammonium Glycolate, pure	E E	E E	E E	E E	E G	GF	- -	- -	EE	EG	EG	EE
Ammonium Hydroxide, 5%	E E	E E	F F	E E	E E	F N	F N	FN	EE	E E	E E	EF
Ammonium Hydroxide, 30%	E E	E E	F F	E E	E G	NN	NN	NN	EE	EG	EG	GF
Ammonium Oxalate, pure	E E	E E	E E	E E	E G	E E	- -	- -	EE	EG	EG	EE
Ammonium Salts, pure	E E	E E	E E	E E	E E	GG	GF	- -	EE	E E	E E	GG
Amyl Chloride, pure	E E	E E	G F	F N	N N	NN	- -	- -	EE	NN	NN	NN
Aniline, pure	EG	E E	G F	GF	E G	NN	G -	- -	EE	EG	G F	NN
Aqua Regia, pure	EG	E E	N N	N N	N N	NN	NN	- -	EE	NN	NN	NN
Benzaldehyde, pure	E F	E E	G N	G N	E G	NN	E -	- -	EE	EG	EG	NN
Benzene, pure	EG	E E	F F	N N	N N	NN	GN	NN	EE	NN	NN	NN
Benzoic Acid, saturated	E E	E E	E E	E E	E E	EG	EN	- -	EE	EG	EG	GG
Benzyl Acetate, pure	EG	E E	E E	E E	E G	F N	- -	- -	EE	EG	EG	NN
Benzyl Alcohol, pure	E E	E E	GG	F N	N N	NN	GN	NN	EE	GG	NN	NN
Bromine, pure	EG	E E	F N	F N	N N	F N	- -	- -	EE	NN	NN	NN

CHEMICAL	ETFE	FEP	FLPE	HDPE	LDPE	PC	PET	PETG	PFA	PP	PPCO	PS
Bromobenzene, pure	EF	EE	FF	NN	NN	NN	- -	- -	EE	NN	NN	NN
Bromoform, pure	EF	EE	FF	NN	NN	NN	- -	- -	EE	NN	NN	NN
Butadiene, pure	EE	EE	GF	FN	NN	NN	- -	- -	EE	NN	NN	NN
Butyl Chloride, pure	EE	EE	FF	NN	NN	NN	- -	- -	EE	NN	NN	NN
n-Butyl Acetate, pure	EG	EE	EG	GF	GF	NN	GN	- -	EE	GF	GF	NN
n-Butyl Alcohol, pure	EE	EE	EE	EE	EE	GF	EN	- -	EE	EE	EE	EG
sec-Butyl Alcohol, pure	EE	EE	EE	EE	EE	EG	EN	- -	EE	EE	EE	GG
tert-Butyl Alcohol, pure	EE	EE	EE	EE	EG	GF	EN	- -	EE	EG	EG	GG
Butyric Acid, pure	EE	EE	FN	FN	NN	NN	- -	- -	EE	NN	NN	NN
Calcium Hydroxide, concentrated	EE	EE	FF	EE	EE	NN	- -	- -	EE	EE	EE	GG
Calcium Hypochlorite, saturated	EE	EE	FF	EE	EE	FN	NN	- -	EE	EE	EE	EG
Carbazole, pure	EE	EE	EE	EE	EE	NN	- -	- -	EE	EE	EE	EE
Carbon Disulfide, pure	EG	EE	NN	NN	NN	NN	E -	- -	EE	NN	NN	NN
Carbon Tetrachloride, pure	EE	EE	EG	GF	FN	NN	NN	NN	EE	GF	NN	NN
Cedarwood Oil, pure	EG	EE	- -	FN	NN	GF	EN	NN	EE	NN	NN	NN
Cellosolve Acetate, pure	EG	EE	EE	EE	EG	FN	- -	- -	EE	FN	EG	NN
Chlorine, 10% dry gas	EE	EE	EF	EF	GN	EG	NN	- -	EE	FN	GN	NN
Chlorine, 10% wet gas	EE	EE	GF	GF	GN	GF	NN	- -	EE	FN	FN	NN
Chloroacetic Acid, pure	EE	EE	EE	EE	EE	FN	- -	- -	EE	EG	EG	GN
p-Chloroacetophenone, pure	EE	EE	EE	EE	EE	GN	- -	- -	EE	EE	EE	NN
Chlorobenzene, pure	EE	EE	FF	NN	NN	NN	GN	- -	EE	NN	NN	NN
Chloroform, pure	EG	EE	GF	FN	FN	NN	NN	- -	EE	NN	NN	NN
Chromic Acid, 10%	EE	EE	EE	EE	EE	GF	NN	G -	EE	EE	EE	EG
Chromic Acid, 50%	EE	EE	EE	EE	EE	FN	NN	- -	EE	GF	GF	FN
Cinnamon Oil, pure	EG	EE	- -	NN	NN	GF	EN	- -	EE	NN	NN	NN
Citric Acid, 10%	EE	EE	EE	EE	EE	EE	- -	G -	EE	EE	EE	EE
Cresol, pure	EE	EE	GG	FN	NN	NN	EN	- -	EE	GF	GF	FN
Cyclohexane, pure	EE	EE	GF	FN	FN	EF	EG	GN	EE	GN	FN	NN
Cyclohexanone, pure	EE	EE	GF	FN	NN	NN	EF	NN	EE	FN	FN	NN
Cyclopentane, pure	EE	EE	GF	FN	NN	NN	- -	- -	EE	FN	FN	NN
Decalin, pure	EE	EE	EE	EG	GF	E -	- -	- -	EE	NN	GF	NN
n-Decane, pure	EE	EE	GF	FN	FN	FN	- -	- -	EE	FN	FN	FN
Diacetone Alcohol, pure	EG	EE	EE	EE	FN	NN	GF	- -	EE	GF	EF	EF
o-Dichlorobenzene, pure	EF	EE	FF	NN	FN	NN	FN	NN	EE	FN	FN	NN
p-Dichlorobenzene, pure	EF	EE	FF	NN	FN	NN	FN	NN	EE	GF	GF	NN
1,2-Dichloroethane, pure	EE	EE	FF	NN	NN	NN	NN	NN	EE	NN	NN	NN
1,4-Dioxane, pure	EF	EE	EE	GG	GF	NN	EN	- -	EE	NN	GF	NN
Diethyl Benzene, pure	EE	EE	GF	FN	NN	FN	- -	- -	EE	NN	NN	NN
Diethyl Ether, pure	EE	EE	GF	FN	NN	NN	EN	E -	EE	FN	NN	NN
Diethyl Ketone, pure	GF	EE	FF	NN	NN	NN	E -	- -	EE	GG	GG	NN
Diethyl Malonate, pure	EE	EE	EE	EE	EE	FN	- -	- -	EE	EE	EE	NN
Diethylamine, pure	EG	EE	NN	FN	NN	NN	- -	- -	EE	GN	GN	GG
Diethylene Glycol Monoethyl Ether, pure	EE	EE	EE	EE	EE	FN	- -	- -	EE	EE	EE	NN

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CHEMICAL	ETFE	FEP	FLPE	HDPE	LDPE	PC	PET	PETG	PFA	PP	PPCO	PS
Diethylene Glycol, pure	E	E	E	E	E	G	F	-	-	E	E	E	N
Dimethyl Acetamide, pure	E	G	E	E	G	G	F	N	N	E	E	E	N
Dimethyl Formamide, pure	G	G	E	G	E	E	N	N	N	E	E	E	N
Dimethylsulfoxide, pure	E	G	E	E	E	E	N	E	N	E	E	E	E
2,4-Dichlorophenol, pure	E	E	F	F	N	N	N	N	-	-	E	N	N	N
Dipropylene Glycol, pure	E	E	E	E	E	E	G	F	-	-	E	E	E	E
Ether, pure	E	G	E	G	F	N	N	N	E	N	E	-	E	N	N	N
Ethyl Acetate, pure	E	E	E	E	E	E	N	N	E	F	N	E	G	N	G	F	N
Ethyl Alcohol, 40%	E	E	E	E	E	E	E	G	E	G	G	-	E	E	E	E	E	G
Ethyl Alcohol, pure	E	E	E	E	E	E	G	E	G	G	G	-	E	E	E	G	E	G
Ethyl Benzene, pure	G	F	E	G	F	N	N	N	N	-	-	E	-	E	E	N	N	N
Ethyl Benzoate, pure	E	G	E	E	G	G	F	F	N	N	-	-	-	-	E	E	G	F	G	F	N
Ethyl Butyrate, pure	E	G	E	G	G	F	G	N	N	N	-	-	-	-	E	E	G	N	G	N	N
Ethyl Chloride, pure	E	E	F	F	N	N	F	N	N	N	-	-	-	-	E	E	F	N	F	N	N
Ethyl Cyanoacetate, pure	E	E	E	E	E	E	E	F	N	N	-	-	-	-	E	E	E	E	E	N
Ethyl Lactate, pure	E	E	E	E	E	E	E	F	N	N	-	-	-	-	E	E	E	E	E	FN
Ethylene Chloride, pure	E	E	F	F	N	N	N	N	N	N	N	N	E	E	N	N	N	N
Ethylene Glycol Monomethyl Ether, pure	E	E	E	E	E	E	G	N	N	G	-	F	N	E	E	G	F	E	E	N
Ethylene Glycol, pure	E	E	E	E	E	E	E	G	E	F	E	-	E	E	E	E	E	E
Ethylene Oxide, pure	E	E	E	G	G	F	F	F	N	G	F	G	F	E	E	F	N	F	F	N
Fatty Acids - saturated, pure	E	E	E	E	E	G	F	G	F	-	-	G	F	E	E	E	G	E	G	E	F
Fatty Acids - unsaturated, pure	E	E	E	E	E	G	F	G	F	-	-	G	F	E	E	E	G	E	G	E	F
Fluorides	E	E	E	E	E	E	E	E	E	-	-	-	-	E	E	E	E	E	G	G
Fluorine, gas	G	E	G	G	N	E	G	N	G	F	-	-	-	E	G	N	N	F	N	N
Formaldehyde, 10%	E	E	E	E	E	E	E	E	E	E	-	-	E	E	E	E	E	G	G
Formaldehyde, 40%	E	E	E	E	G	E	G	E	G	E	E	-	-	E	E	E	G	G	G
Formic Acid, 100%	E	E	E	E	E	G	G	F	N	F	N	-	-	E	E	G	E	G	G	F
Formic Acid, 3%	E	E	E	E	E	E	G	E	G	E	N	-	-	E	E	E	E	G	E	E
Formic Acid, 50%	E	E	E	E	E	G	G	E	G	F	E	N	-	-	E	E	G	E	G	G	F
Freon TF, pure	E	G	E	E	E	G	E	G	G	N	E	G	-	-	E	E	G	E	G	F	N
Fuel Oil, pure	E	E	E	G	G	F	F	N	E	G	E	-	-	E	E	F	E	G	F	N
Gasoline	E	E	E	G	F	N	N	N	F	N	E	-	G	-	E	E	F	N	N	N
Glacial Acetic Acid	E	E	G	G	G	G	E	G	E	N	N	N	E	E	G	G	E	N
Glutaraldehyde Disinfectant	E	G	E	E	E	E	G	E	F	E	-	-	-	E	E	E	E	E	F
Glycerine, pure	E	E	E	E	E	E	E	E	E	E	F	-	-	E	E	E	E	E	E
n-Heptane, pure	E	E	G	G	F	F	N	N	F	N	E	-	E	-	E	E	F	F	F	N
Hexane, pure	E	E	E	G	G	F	F	N	N	F	N	E	-	G	-	E	E	G	F	F	N	N
Hydrazine, pure	G	N	E	-	-	N	N	N	N	N	-	-	-	-	E	E	N	N	N	N
Hydrochloric Acid, 20%	E	E	E	E	E	E	E	G	F	G	N	G	-	E	E	E	E	E	E	E
Hydrochloric Acid, 35%	E	E	E	E	E	E	E	F	N	N	N	G	-	E	E	E	G	E	G	E	E
Hydrochloric Acid, 5%	E	E	E	E	E	E	E	E	E	G	F	G	-	E	E	E	E	E	E	E
Hydrofluoric Acid, 4%	E	E	E	E	E	E	E	G	G	G	F	F	N	E	E	E	E	G	G	F
Hydrofluoric Acid, 48%	E	E	E	E	E	E	E	F	N	N	N	N	E	E	E	G	E	N	N

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Hydrogen Peroxide, 3%	E	E	E	E	E	E	E	F	G	-	E	E	G
Hydrogen Peroxide, 30%	E	E	E	E	E	G	E	E	N	G	-	E	E	F	G	E
Hydrogen Peroxide, 90%	E	F	E	E	E	E	N	E	E	G	N	G	-	E	E	F	G	G
Iodine Crystals	E	G	E	E	N	N	N	N	G	N	-	-	-	-	E	E	F	N	G	F
Isobutyl Alcohol, pure	E	E	E	E	E	E	E	E	E	G	E	N	-	-	E	E	E	E	G	E
Isopropyl Acetate, pure	E	G	E	E	E	G	G	F	N	N	-	-	-	-	E	E	G	F	G	F	N	N
Isopropyl Alcohol, pure	E	E	E	E	E	E	E	E	E	E	E	N	-	-	E	E	E	E	E	G
Isopropyl Benzene, pure	E	G	E	G	F	F	N	N	N	N	-	-	-	-	E	E	F	N	F	N	N	N
Isopropyl Ether, pure	E	G	E	G	F	N	N	N	N	N	-	-	-	-	E	E	N	N	N	N
Jet Fuel, pure	E	E	E	G	F	F	N	N	G	N	E	-	-	-	E	E	F	N	F	N	G	F
Kerosene, pure	G	F	E	E	G	F	F	N	E	-	E	-	G	-	E	E	F	N	N	N
Lacquer Thinner	E	E	E	G	F	N	N	N	N	-	-	N	E	E	F	N	F	N	N	N
Lactic Acid, 3%	E	E	E	E	E	E	E	E	N	F	N	E	E	E	E	G	E	E
Lactic Acid, 85%	E	E	E	E	E	E	G	G	N	N	E	E	E	G	E	G	E	E
Mercury	E	G	E	E	E	E	E	E	N	N	-	-	-	-	E	E	E	E	E	G
2-Methoxyethanol, pure	E	E	E	E	E	E	G	N	N	G	-	F	N	E	E	G	F	E	E	N	N
Methoxyethyl Oleate, pure	E	E	E	E	E	E	G	F	N	-	-	G	-	E	E	G	E	G	N	N
Methyl Acetate, pure	E	G	E	G	G	F	F	F	N	N	N	N	N	N	E	E	G	F	G	F	N	N
Methyl Alcohol, pure	E	E	E	E	E	E	G	G	F	E	N	G	-	E	E	E	E	E	G	F
Methyl Ethyl Ketone, pure	E	G	E	E	F	F	N	N	N	N	N	E	G	G	-	E	E	G	E	G	N	N
Methyl Isobutyl Ketone, pure	E	G	E	E	F	F	N	N	N	N	N	G	F	N	N	E	E	G	F	G	F	N	N
Methyl Propyl Ketone, pure	E	G	E	G	F	N	N	N	N	N	E	-	N	N	E	E	G	F	G	F	N	N
Methylene Chloride, pure	G	N	E	E	G	F	N	N	N	N	N	N	N	N	E	E	F	N	F	N	N	N
Methyl-t-Butyl Ether, pure	E	G	E	E	G	F	N	N	N	N	-	-	N	N	E	E	F	N	F	N	N	N
Mineral Oil	E	E	E	E	E	E	G	N	E	E	E	E	G	N	E	E	E	F	E	E	E	E
Nitric Acid, 10%	E	E	E	E	E	E	E	E	E	G	F	N	G	-	E	E	E	E	E	G	N
Nitric Acid, 50%	E	E	E	E	F	N	F	N	G	F	G	F	N	N	G	-	E	E	F	N	F	N	F	N
Nitric Acid, 70%	E	G	E	E	F	N	F	N	F	N	G	N	N	N	N	E	E	N	N	N	N	N
Nitrobenzene, pure	E	G	E	E	F	F	N	N	N	N	N	G	N	N	N	E	E	N	N	N	N	N
Nitromethane, pure	E	G	E	E	F	N	F	N	N	N	N	N	N	N	E	E	F	N	F	N	N	N
n-Octane, pure	E	E	E	E	E	E	E	E	G	F	-	-	-	-	E	E	E	E	E	N	N
Orange Oil, pure	E	E	E	E	G	G	F	F	F	N	-	-	-	-	E	E	G	F	G	F	N	N
Ozone, pure	E	E	E	E	G	N	G	N	G	N	N	N	-	-	-	-	E	E	F	N	E	G	F	F
Perchloric Acid, pure	G	F	G	F	G	N	G	N	G	N	N	N	-	-	-	-	G	F	G	N	G	N	G	F
Perchloroethylene, pure	E	E	E	E	F	F	N	N	N	N	N	N	G	N	-	-	E	E	N	N	N	N	N
Phenol, Crystals, pure	E	E	E	E	E	G	F	F	N	N	N	N	N	N	N	E	E	G	N	G	N	N
Phenol, liquid	E	F	E	E	F	F	N	N	N	N	N	N	N	N	N	E	E	N	N	N	N	N
Phosphoric Acid, 5%	E	E	E	E	E	E	E	E	E	E	G	N	-	-	E	E	E	E	E	E	E
Phosphoric Acid, 85%	E	E	E	E	E	E	E	N	E	G	N	N	-	-	E	E	E	G	E	G	E	G
Picric Acid, pure	G	F	E	E	N	N	N	N	N	N	N	N	-	-	-	-	E	E	N	N	N	N	G	F
Pine Oil, pure	E	E	E	E	F	N	F	N	G	N	G	F	E	-	-	-	E	E	G	E	G	N
Potassium Hydroxide, 1%	E	E	E	E	N	N	F	F	E	E	F	N	G	N	-	-	E	E	E	E	E	E	G
Potassium Hydroxide, concentrated	E	E	E	E	F	F	E	E	E	E	N	N	N	N	N	N	E	E	E	E	E	G	G

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Propane, gas	E	E	E	E	E	N	N	F	-	-	E	E	N	N	N	N
Proprionic Acid, pure	E	G	E	E	F	E	F	F	N	N	-	-	E	E	E	G	E	G	G	N
Propylene Glycol, pure	E	E	E	E	E	E	E	E	G	F	-	-	E	E	E	E	E	E	E	E
Propylene Oxide, pure	E	F	E	E	E	E	E	G	G	F	-	-	E	E	E	G	E	G	N	N
Resorcinol, 5%	E	F	E	E	E	E	E	E	G	F	E	-	-	-	E	E	E	E	G	F
Resorcinol, saturated	E	E	E	E	E	E	E	E	G	F	E	-	-	-	E	E	E	E	G	F
Salicylaldehyde, pure	E	G	E	E	E	E	E	G	G	F	-	-	-	-	E	E	E	G	N	N
Salicylic Acid, powder, 100%	E	E	E	E	E	E	E	E	E	G	-	-	-	-	E	E	E	E	E	E
Salicylic Acid, saturated	E	E	E	E	E	E	E	E	E	G	-	-	-	-	E	E	E	E	E	G
Silicone Oil, pure	E	E	E	E	E	E	E	G	E	E	G	N	N	N	E	E	E	E	E	G
Silver Acetate, pure	E	E	E	E	E	E	E	E	E	G	-	-	-	-	E	E	E	E	G	G
Silver Nitrate, pure	E	E	E	E	E	E	E	G	E	E	G	N	-	-	E	E	E	G	E	E
Skydrol LD4	E	E	E	G	E	G	G	F	N	N	-	-	-	-	E	E	G	G	N	N
Sodium Acetate, saturated	E	E	E	E	E	E	E	E	G	-	-	-	-	E	E	E	E	E	E	E
Sodium Hydroxide, 1%	E	E	N	N	F	F	E	E	F	N	G	N	G	-	E	E	E	E	E	E
Sodium Hydroxide, 50%	E	E	F	F	E	E	G	G	N	N	N	N	N	N	E	E	E	E	E	G
Sodium Hypochlorite, 15%	E	E	F	F	E	G	E	F	G	F	N	N	G	-	E	E	F	N	G	E
Stearic Acid, pure	E	E	G	G	G	G	E	E	E	G	-	-	-	-	E	E	E	E	E	G
Sulfur Dioxide, dry gas	E	E	E	E	E	E	E	E	E	G	-	-	-	-	E	E	E	E	F	N
Sulfur Dioxide, liquid	E	G	E	E	F	N	N	N	G	N	-	-	-	-	E	E	N	N	N	N
Sulfur Dioxide, wet gas	E	E	E	E	E	E	E	E	E	G	-	-	-	-	E	E	E	E	F	N
Sulfur Salts, pure	E	G	E	E	G	F	F	N	F	N	-	-	-	-	E	E	F	N	N	N
Sulfuric Acid, 20%	E	E	E	E	E	E	E	E	E	G	N	N	E	-	E	E	E	G	E	E
Sulfuric Acid, 6%	E	E	E	E	E	E	E	E	E	E	F	N	E	-	E	E	E	E	E	E
Sulfuric Acid, 60%	E	E	E	G	E	G	E	G	G	F	N	N	-	-	E	E	G	F	G	E
Sulfuric Acid, 98%	E	G	E	F	N	F	N	G	N	N	N	N	N	N	E	E	F	N	F	F
Tartaric Acid, pure	E	E	E	E	E	E	E	E	E	G	-	-	-	-	E	E	E	E	E	G
Tetrahydrofuran, pure	G	F	E	E	G	F	F	N	N	N	G	N	-	-	E	E	G	F	G	N
Thionyl Chloride, pure	E	E	E	N	N	N	N	N	N	N	-	-	-	-	E	E	N	N	N	N
Toluene, pure	E	E	E	E	F	F	N	N	F	N	N	N	G	N	E	E	N	N	N	N
Tributyl Citrate, pure	E	G	E	E	E	E	E	G	G	F	N	N	-	-	E	E	G	F	G	N
Trichloroacetic Acid, pure	E	G	E	E	F	N	F	N	F	N	F	N	N	N	-	-	E	E	G	F	F	N
1,2,4-Trichlorobenzene, pure	E	G	E	E	F	F	N	N	N	N	N	N	-	-	N	E	E	N	N	N
Trichloroethane, pure	G	N	E	E	F	F	N	N	N	N	G	N	-	-	E	E	N	N	N	N
Trichloroethylene, pure	E	E	E	E	F	F	N	N	N	N	G	N	-	-	E	E	N	N	N	N
Triethylene Glycol, pure	E	E	E	E	E	E	E	E	E	G	-	-	-	-	E	E	E	E	E	G
Tris Buffer Solution, pure	E	E	E	E	E	G	E	G	G	F	E	E	G	G	E	E	E	G	G	N
Turpentine	E	E	E	G	F	F	N	N	F	N	E	-	G	-	E	E	F	N	N	N
Undecyl Alcohol, pure	E	G	E	E	E	G	E	F	G	F	-	-	-	-	E	E	E	G	G	G
Urea, pure	E	E	E	E	E	E	E	E	G	F	E	-	-	-	E	E	E	E	E	G
Vinylidene Chloride, pure	G	F	E	G	F	N	N	N	N	N	-	-	-	-	E	E	N	N	N	N
Xylene, pure	E	G	E	G	F	N	N	N	N	N	G	N	-	-	E	E	N	N	F	N
Zinc Stearate, pure	E	E	E	E	E	E	E	E	E	E	-	-	-	-	E	E	E	E	E	E

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NALGENE Bio Bottle, 2L with Sealing Cap, polypropylene copolymer; polypropylene sealing closure, silicone gasket (Cat. No. 3120-2006). Designed for use in Thermo Scientific Sorvall® RC12BP Centrifuge and H-12000 Swing Bucket Rotor

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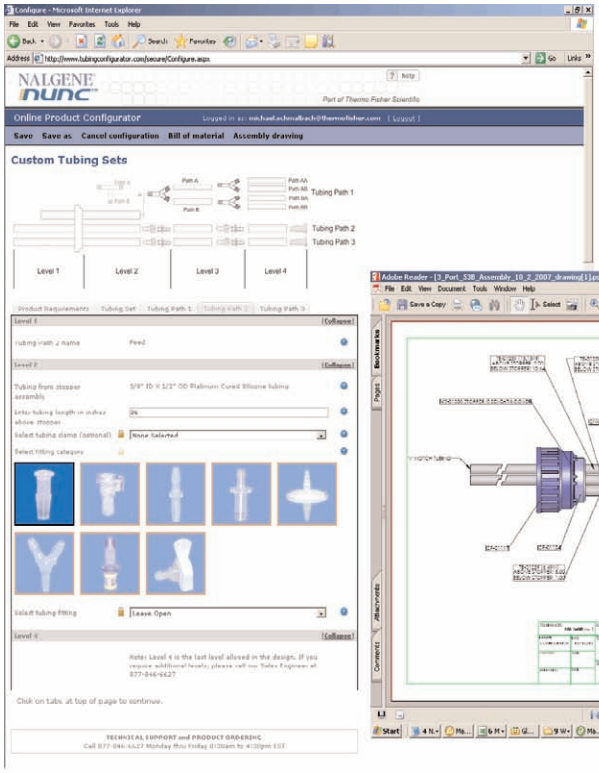

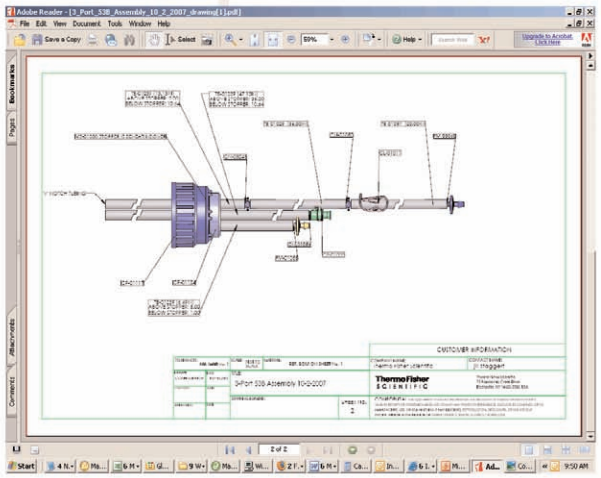

A two-dimensional CAD drawing is generated to verify your design and confirm that it will function.

www.tubingconfigurator.com

Thermo Fisher Scientific ISO Certifications

ISO 13485:2003
FM 31464

The **Rochester, New York and Fairport, New York** manufacturing facilities extended their Quality Management System to be in compliance to ISO 13485 in May 2003. This upgrade supersedes the ISO 9001 system that was in place since May 1995. These sites are also registered as GMP (Good Manufacturing Practices) facilities for Class I devices (design exempt) with the US Food and Drug Administration.

Roskilde, Denmark manufacturing facilities are certified* to ISO 9001:2000 and ISO 13485:2003 and are registered as GMP (Good Manufacturing Practices) facilities for Class I devices (design exempt) with the US Food and Drug Administration. These facilities are also certified to Environmental Management System Standard ISO 14001:2004.

ISO 9001
DNV
CERTIFIED ORGANISATION

The **Vantaa, Finland** manufacturing facility is certified to ISO 13485: 9001.

*Valid for products manufactured in Denmark. Further information can be found at www.nuncbrand.com.