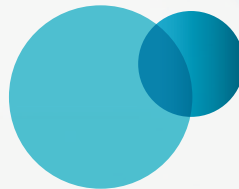




# YOUR PARTNER

in the pre-analytical phase for medical diagnostics

COPAN FLOCK TECHNOLOGIES



# A FULLY INTEGRATED COMPANY

COPAN'S MISSION IS TO IMPROVE THE QUALITY OF THE PRE-ANALYTICAL PHASE THROUGH COLLECTION AND PRESERVATION OF THE BIOLOGICAL SAMPLE



## RESEARCH

COPAN maintains close connections with the clinical microbiology community to continually improve product performance, understanding this as the only way to develop new solutions that address the needs of modern microbiology labs. COPAN will continue to invest in science and technology to improve its knowledge and offer the most innovative and technically diverse product line in its market.



## DEVELOPMENT

COPAN is dedicated to developing innovative devices for sample collection, transport, preservation and processing to serve diagnostic, biotechnology and life science companies including forensics.



## TECHNOLOGY

COPAN has an extensive range of capabilities and know-how, including expert resources in the field of medical sciences, product design and engineering. Additionally COPAN houses a fully equipped molecular biology laboratory and wide manufacturing and packaging capabilities.



## DNA-FREE

COPAN has a line specifically certified free of DNase, RNase, and Human DNA for forensic applications.



## QUALITY

COPAN is dedicated to ensuring compliance with the highest quality standards. Copan is in total control of all the process: products design, manufacture and tests are all done in-house. The staff of the company to all levels, is the essence of the organization.



With a reputation for innovation in pre-analytics, COPAN (from the acronym "Collection and Preservation for ANalysis") is the leading manufacturer of collection and transport systems in the world. Copan Flock Technologies (CFT) is unique within the COPAN group in many respects:

**CFT's business-to-business strategy** serves wholesale needs for sample collection, transport, preservation, and processing of diagnostic, biotechnology and life science companies, including forensics.

**CFT's is backed by extensive scientific expertise** in specimen management from the moment the sample is taken until it arrives in the testing laboratory.

**CFT is a total solution provider that works in partnership with industry clients to develop customized or unique products.** Using the latest technology, Copan Flock Technologies manufactures and packages high quality products at competitive prices.

**CFT understands that only by efficient sample collection and preservation** the right assay sensitivity can be obtained.

**COPAN's flagship innovation, FLOQSwabs™,** opened the door for COPAN to further expand its capabilities to create improved devices, not just swabs, for collecting and eluting samples used in a wide variety of applications from molecular assays, antigen testing and EIA to Forensics, DNA paternity kits and drugs of abuse testing kits.

# QUALITY & REGULATORY INFORMATION



By being ISO 9001:2008 and ISO 13485:2003 Certified, Copan Flock Technologies has demonstrated its ability to not only provide products that meet customer and regulatory requirements, but also its commitment to improve CUSTOMER SATISFACTION through the effective application of its quality management system.

## ISO9001:2008

ISO9001:2008 is a standard on quality management system (QMS) promoting a systematic approach towards the management of product quality.

## ISO13485:2003

Quality management system specific for medical devices and related services.

## ISO13485:2003 CMDCAS

ISO13485:2003 is an international standard for quality systems certified by special third party auditing organizations called Canadian Medical Devices Conformity Assessment System (CMDCAS) recognized registrars.

## CE MARKING

CE marking is applied after examination of a notified conformity assessment body, it ensures the free movement within the European market of products that conform to the requirements of EU legislation and it is a key indicator of a product's compliance with legislation (Medical Devices Directive 93/42/EEC + In Vitro Diagnostic Medical Devices Directive 98/79/EEC). By placing CE marking on a product, manufacturers declare on their responsibility that the products comply with all the legal requirements in force in Europe.

## HEALTH CANADA

Health Canada (MDALL) reviews medical devices to assess their safety, effectiveness and quality before being authorized for sale in Canada.

## FDA MANUFACTURER ESTABLISHMENT

Establishments that are involved in the production and distribution of medical devices intended for use in the United States (U.S.) are required to register with the FDA.

## THE MINISTRY OF HEALTH, LABOUR, AND WELFARE

(MHLW) (Koseirodoshu in Japanese) is in charge for the improvement and promotion of social welfare, social security and public health in Japan.

## GEDNAP (German DNA profiling group)

Our molecular biology laboratory has repeatedly obtained the certificate by the laboratory organising the Proficiency Tests for DNA typing.

To know more about our approach to Quality, please visit the certifications section of our web site: [www.copanflock.com](http://www.copanflock.com)



European Patent # 1608268  
Canadian Patent # 2515205  
Japanese Patent # 2007-523663  
Australian Patent #2004226798

New Zealand Patent # 541560  
Chinese Patent # 101103931  
US Patent pending

SCIENTIFIC STUDIES SHOW THAT FLOQSwabs™ **SIGNIFICANTLY IMPROVE THE QUANTITY OF SAMPLE COLLECTED AND SAMPLE RELEASED** INTO VARIOUS CULTURE AND ASSAY SYSTEMS, **IMPROVING THE SENSITIVITY OF VARIOUS DIAGNOSTIC TESTS** AND THE QUALITY OF DIAGNOSTICS.

Better diagnostics begin with better samples and better samples are obtained by using proper sample collection methods. Through extensive co-operations with key opinion leaders and clinical evaluations, Copan has designed and developed **anatomically shaped FLOQSwabs™ that allow to optimize the efficiency of the target analyte collection with improved patient's comfort.**

Besides the study of the anatomical shape, **Copan's patient-oriented research** has resulted in **ergonomically designed collection systems specifically developed to successfully work in a home testing setting.**

## PLUS FEATURES

### ERGONOMIC AND ANATOMIC DESIGN

Improved patient comfort and efficiency in specimen collection.

### RAPID AUTOMATIC ELUTION

Instant and spontaneous release into liquid media.

### QUANTITATIVE VOLUME TRANSFER

Measurable and consistent uptake and transfer from patient to test tube.

### MAXIMUM FLUID TRANSFER

Perpendicular flocked fibers provide efficient absorption and complete release of liquid sample.

### MAXIMUM CELLULAR TRANSFER

Velvet brush-like texture rapidly and efficiently dislodges cells and allows complete dispersal in sample buffer or preservation medium.

### COMPATIBILITY WITH MULTIPLE APPLICATIONS AND PLATFORMS

FLOQSwabs™ are versatile and ideal for rapid antigen testing, EIA, PCR and molecular-based assays, DFA and cytology testing, bacteriology and virology culture.

### CUSTOMIZABLE TREATMENTS

FLOQSwabs™ tip can be treated, coated or activated according to specific customization requirements in terms of enhanced flow dynamics, performance, target analyte, etc.

### SAFE BREAKPOINT

Safe and convenient molded breakpoint.

### BAR CODING

Customized product identification by means of a uniquely assigned bar code is available on request.



**PATENTED**  
European Patent #1608268  
Canadian Patent #2515205  
Japanese Patent #2007-523663  
Australian Patent #2004226798  
New Zealand Patent #541560  
Chinese Patent #101103931  
US Patent Pending



## CUSTOMER QUOTES

✓ "We collaborated with COPAN to develop a nasal mid-turbinate swab for respiratory virus sampling in children and in adults. We have recently published data demonstrating excellent respiratory epithelial cell sampling with the flocked nasal mid-turbinate swab, comparable to a flocked nasopharyngeal swab. We also demonstrated feasibility of self collection, and excellent cell sampling. Finally, we validated flocked nasal swab self-collection coupled with respiratory virus multiplex PCR for the diagnosis of respiratory infections."

Marek Smieja, Ph.D.  
Infectious Diseases Physician and Microbiologist,  
McMaster University, Hamilton, Ontario, Canada

✓ "In our institution nasopharyngeal aspirates were replaced by COPAN's nasopharyngeal FLOQSwabs™ for specimen collection for the diagnosis of respiratory infections. We also discovered that the flocked swabs used with molecular assays are excellent for monitoring viral load following antiviral treatment, since they collect constant cell numbers from the appropriate anatomical site. We discovered that FLOQSwabs™ have both qualitative and quantitative sample collection capability for improving diagnostics assay sensitivity."

Fausto Baldanti, M.D. and Elena Percivalle, Ph.D.  
Molecular Virology Unit, Virology and Microbiology,  
Fondazione IRCCS Policlinico San Matteo

## SCIENTIFIC REFERENCES

✓ "Collection by trained pediatricians or parents of mid-turbinate nasal flocked swabs for the detection of influenza viruses in childhood."

Susanna Esposito, Claudio G Molteni, Cristina Daleno, Antonia Valzano, Claudia Tagliabue, Carlotta Galeone, Gregorio Milani, Emilio Fossali, Paola Marchisio and Nicola Principi  
Virology Journal 2010, 7:85 doi:10.1186/1743-422X-7-85.

✓ "Comparison between pernasal flocked swabs and nasopharyngeal aspirates for the detection of common respiratory viruses in Children."

Afaf Abu-Diab, Maysa Azzeh, Raed Ghneim, Riyad Ghneim, Madeleine, Zoughbi, Sultan Turkuman1, Nabeel Rishmawi, Abed-El-Razeq Issa, Issa Siriani, Rula Dawodi, Randa Kattan, and Musa Y Hindiyeh  
Journal of Clinical Microbiology doi:10.1128/JCM.00369-08.

✓ "Testing for Human Papillomavirus and Measurement of Viral Load of HPV 16 and 18 in Self-Collected Vaginal Swabs of Women Who Do Not Undergo cervical Cytological Screening in Southern France."

Catherine Tamalet, Herve Richet, Xavier Carcopino, Mireille Henry, Laurence Leretraite, Patrice Heid, Francois-Xavier Leandri, Helene Sancho-Garnier, and Lucien Piana.  
Journal of Medical Virology (2010).



To view more quotes, scientific references and studies, visit our website: [www.copanflock.com](http://www.copanflock.com)

## OVER THE COUNTER, SELF, HOME & PARENTAL COLLECTION

There are two main applications where there has been a growing interest for **Over-the-Counter (OTC) or Self Collection kits**: sexually transmitted diseases (STDs) and respiratory viruses. The ability to collect samples for STDs in the privacy of the patient's own home has opened the door for increased diagnosis and control of STDs. Home collection may be a viable mechanism to reach populations that would not be reached otherwise and for respiratory viruses allows to test remote patients in the event of an outbreak or pandemic.

Copan Flock Technologies **uniquely designed anatomical and ergonomical FLOQSwabs™ for self-collection and OTC** enable easy and safe self collection.

## EXAMPLES OF ANATOMIC AND ERGONOMIC FLOQSwabs™

### MID-TURBINATE COLLECTION



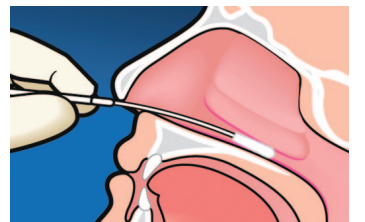
COPAN developed mid-turbinate nasal FLOQSwabs™ to make nasal collection intuitive and straightforward. The mid-turbinate anatomic and ergonomic design opens the potential for parental collection for infants and children with high patient acceptance.



### NASOPHARYNGEAL COLLECTION



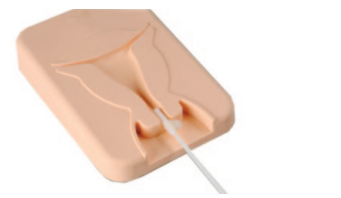
COPAN nasopharyngeal (NP) FLOQSwabs™ for the collection of all respiratory specimens are far superior when compared to traditional NP swabs and NP aspirates/washes for the recovery of cellular material, resulting in the increased detection of all types of respiratory viruses.



### ENDOCERVICAL COLLECTION



Adequate cell collection during Pap tests plays a critical role in the screening of sexually transmitted diseases such as N. Gonorrhoea, Chlamydia, Human Papillomavirus (HPV) and cervical cancer. COPAN's unique **L shaped endo/esocervical FLOQSwab™** was created specifically for Pap tests and has an anatomically correct design allowing the collection of cells from the interior, as well as the outside of the cervix.



FLOQSwabs **CUSTOM DESIGNS** THAT OPTIMIZE THE SENSITIVITY AND SPECIFICITY OF VARIOUS DIRECT ASSAYS **ARE AVAILABLE UPON REQUEST.**

# APPLICATIONS

To view more quotes, scientific references and studies, visit our website: [www.copanflock.com](http://www.copanflock.com)



## MOLECULAR

FLOQSwabs™ are compatible with molecular amplification techniques as they do not interfere with the amplification processes being PCR inhibitors free.

FLOQSwabs™ absorb more sample and release the entire sample, making more nucleic acid target available leading to increase assay sensitivity, which is critical when processing low copy number samples.

FLOQSwabs™ can be combined with Copan LBM™- Liquid Based Microbiology - preservation media, for transport, preservation and stabilization of cells and nucleic acids (see our LBM catalogue).

## CULTURE



FLOQSwabs™ are compatible with cell culture based tests.

FLOQSwabs™ can be combined with Copan dedicated LBM™ media to maintain the viability of Aerobes, Anaerobes, Fastidious Bacteria, Virus, Chlamydia, Mycoplasma and Ureaplasma.

FLOQSwabs™ can also be associated to selective enrichment broths, such as: TSB SaltBroth, LIM Broth, CAT Broth, etc.

## FORENSIC, GENETIC AND HUMAN IDENTITY



4N6FLOQSwabs™ are certified DNase, RNase-free and Human DNA-free. They are also free of any PCR inhibitors and intended for NON DIAGNOSTIC USE.

Carefully molded to collect samples from challenging surfaces and in situations with low copy number DNA.

4N6 DNA line is proven to elute more than 90% of the original sample rapidly and easily resulting in improved assay sensitivity.

FLOQSwabs™ can be conveniently color coded in blue, pink, and white, for DNA Paternity Tests.

## RAPID ANTIGEN TESTING

FLOQSwabs™ are compatible and can be combined with your ICS assay or EIA assay.

FLOQSwabs™ collection devices can be custom designed for assay manufacturers to make sample collection more intuitive for both professionals and novices alike.

FLOQSwabs™ drive greater efficiency and assay sensitivity through better sample collection and delivery.

## DFA/IFA/CYTOLOGY

FLOQSwabs™ are suitable for the preparation of smears of immunofluorescence based assays.

Increased positive rate and more reliable results with FLOQSwabs™ as they are more efficient in picking up the specimen during the collection and instantly and spontaneously releasing it into liquid media or solid phase.

## DRUGS OF ABUSE

In detecting drugs of abuse, oral fluid can be analyzed more easily and without the discomfort of blood analysis or the embarrassment of a urine sample.

Oral fluid samples are easier to collect and require less trained personnel compared to the extensive training needed for blood collection and analysis.

COPAN Flock Technologies has worked with different manufacturers of DOA testing, including manufacturers of roadside testing kits, to develop and customize the best collection tools for their assays.

FLOQSwabs™ can be, upon request, univocally identified with sequential barcodes to preserve a legal chain-of-custody.

FLOQSwabs™ HAVE BEEN EXTENSIVELY TESTED WITH A VARIETY OF APPLICATIONS, TESTING METHODOLOGIES AND TARGET ANALYTES WITH IN-HOUSE AND EXTERNAL EVALUATION STUDIES.

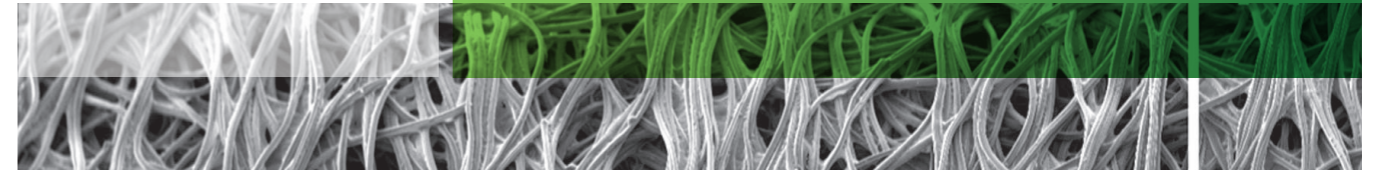
APPLICATIONS - TARGET ANALYTE	RAPID TEST IMMUNO- CHROMATOGRAPHIC POC	EIA ELISA	PCR COMMERCIAL MOLECULAR PLATFORMS	DFA IFA CYTOLOGY	MICROSCOPY WET MOUNT GRAM STAIN	CULTURE	NON DIAGNOSTIC APPLICATIONS	
							FORENSIC GENETICS HUMAN IDENTITY (STR)	DRUG OF ABUSE
MRSA	✓		✓		✓	✓		
VRE			✓		✓	✓		
ESBL			✓		✓	✓		
STREP A	✓	✓	✓		✓	✓		
STREP B	✓	✓	✓		✓	✓		
TRICHOMONAS	✓	✓	✓		✓	✓		
CHLAMYDIA	✓	✓	✓	✓	✓	✓		
NEISSERIA	✓	✓	✓		✓	✓		
MYCOPLASMA		✓	✓		✓	✓		
CANDIDA	✓		✓	✓	✓	✓		
HEEC			✓			✓		
HPV			✓			✓		
HSV	✓		✓	✓		✓		
VARICELLA			✓	✓		✓		
INFLUENZA A&B	✓		✓	✓		✓		
RSV	✓	✓	✓	✓		✓		
BORDETELLA PERTUSSIS			✓			✓		
STREPTOCOCCUS PNEUMONIAE			✓			✓		
CMV			✓	✓		✓		
ROTAVIRUS, ADENOVIRUS, NOROVIRUS	✓	✓	✓	✓		✓		
H. PYLORI	✓	✓	✓		✓	✓		
CAMPYLOBACTER			✓			✓		
CLOSTRIDIUM DIFFICILE	✓	✓	✓			✓		
SALMONELLA	✓		✓			✓		
EPITHELIAL CELLS				✓	✓		✓	✓
SALIVA/SEMEN/BLOOD	✓	✓	✓			✓	✓	✓

Notes: FLOQSwabs™ are designed with specific geometries depending on the anatomic site of collection, target analyte and application. Please refer to the ordering information table to view the complete list of FLOQSwabs™ formats.

CLASSIQSwabs™  
by COPAN

CLASSIQSWABS

TRADITIONAL FIBER SWABS



The CLASSIQSwabs™ line of traditional fiber wound dry swabs includes sterile plain dry swabs with regular and mini tips.

The line offers various packaging configurations including peel pouches and labeled tubes. This dry swab line is available with plastic and metallic applicators.

SWABS ARE AVAILABLE IN BOTH RAYON AND POLYESTER TIP

DIFFERENT SHAFT LENGTHS FOR VARYING NEEDS

INTEGRATED PRODUCTION AND STRINGENT QC CONTROLS

for all raw materials to guarantee product best performance and compatibility.

COLOR CODING AVAILABLE UPON REQUEST

WIDE VARIETY OF PACKAGING OPTIONS

including paper film, double wrapping, dry tubes and two swabs per pouch, to name a few.

DIFFERENT STERILIZATION METHODS AVAILABLE

to ensure optimal performance with your assay.

UNIQUE IDENTIFICATION WITH BARCODING is available on request.

SAFE MOLDED BREAKPOINT is available on solid shaft swabs.

✓ Soft fibre swab tips are inert and non-toxic to microorganisms and patients.



STERILE SWABS INDIVIDUALLY OR MULTIPLE WRAPPED IN PEEL POUCHES



STERILE PLAIN SWABS IN LABELED TUBES

✓ Tamper evident tube seal maintains product integrity and ensures first time use.

✓ Tube made from non-breakable polypropylene to protect both the specimen and medical and technical staff handling samples.

✓ Smooth round bottomed tubes avoid jagged or sharp edges associated with crimped end tubes. No risk of puncturing specimen transport bags. Tubes conveniently fit regular test tube racks facilitating safer transport and easy storage.

✓ Double action security cap slides over the neck of the swab tube and tightly grips the inside and outside of the tube.

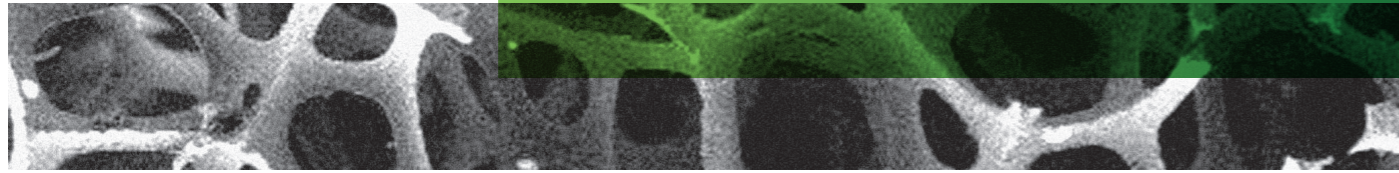


For more information, visit our website in the CLASSIQSwabs section [www.copanflock.com](http://www.copanflock.com)

NUFoam™  
by COPAN

## NUFOAM SWABS

FOAM TIPPED SWABS



NUFoam™ Foam tipped swabs are used in a variety of settings from cleanroom environments to medical devices and are available in:

**DIFFERENT SHAFT OPTIONS, HOLLOW OR SOLID, TO MEET YOUR NEEDS**

**A WIDE VARIETY OF PACKAGING OPTIONS, LIKE PEEL POUCH OR DRY TUBES, AS WELL AS DIFFERENT BUNDLING OPTIONS UPON REQUEST.**

**DIFFERENT STERILIZATION METHODS TO ENSURE OPTIMAL PERFORMANCE.**

✓ Copan Flock Technology wants to offer the complete variety of swabs to respond to the different applications and needs of assay manufacturers also in respect of market traditional approaches to sample collection.



**CLASSICswabs™**  
Sample diffuses in the fiber mattress.

**NuFoamSwabs™**  
Open cell foam limits the volume of sample collected but it stays on surface for easy elution.

**FLOQSwabs™**  
Large volume of liquid sample stays close to the surface and elutes out rapidly and spontaneously.



FLOQControls™  
by COPAN

## FLOQCONTROLS

POSITIVE AND NEGATIVE CONTROLS



**COPAN FLOCK TECHNOLOGIES HAS DEVELOPED FLOQCONTROLS™: A NEW LINE OF POSITIVE AND NEGATIVE QUALITATIVE AND QUANTITATIVE QC CONTROLS FOR YOUR ASSAYS.**

THIS LINE OF PRODUCTS IS COMPLETELY CUSTOMIZABLE DEPENDING ON YOUR NEEDS.

FLOQCONTROLS™ USE A FLOCKED SWAB AS THE DELIVERY SYSTEM, THE FLOW DYNAMICS IS RELIABLE AND CONSISTENT AND THE CONCENTRATION OF THE ANALYTE CAN BE EASILY QUANTIFIED.

COPAN Flock Technologies' in depth knowledge of analyte management and analyte stability, makes the company a valuable partner to help kit manufacturers and diagnostics companies achieve the best QC Controls for their assay:

### PLUS FEATURES

**CUSTOMIZABLE QUANTITATIVE AND QUALITATIVE QC CONTROLS**

**DIFFERENT MANUFACTURING PROCESSES AVAILABLE**

Heat Dried, Vacuum Dried and Freeze Dried depending on analyte sensitivity.

**CUSTOM PACKAGING AVAILABLE**

**HIGH ABSORBENCY AND RELEASE RATE** of the active principle allows quantitative absorption into the fibers of the FLOQSwab™. Different length of control swabs and color coded applicator sticks are available upon request.

**COLOR CODED APPLICATORS** available on request.

**ROOM TEMPERATURE STABLE**

No refrigeration needed.

**READY TO USE**

**TEST SENSITIVITY VERIFICATION**

Limits of Detection (LOD), or cut offs, can be precisely verified using FLOQControls™, because the control swabs are quantitatively dosed with analyte and that dose is completely eluted when used in the assay.

**MULTI-ANALYTE CAPABILITY**

Apply multiple analytes on the same QC control.

**EXAMPLES OF RECENT QUALITATIVE QC CONTROLS DEVELOPED BY COPAN FLOCK TECHNOLOGIES INCLUDE FOLLOWING ANTIGENS:** Flu A, Flu B, Flu A&B combo, RSV, Adeno virus, Rota virus, Adeno and Rota virus combo, Helicobacter pylori, and Legionella pneumophila.



✓ **Copan Certified Quality**  
QC testing conforms to CE mark and ISO regulations

✓ **Handiness**  
no lyophilized controls – easy to use

✓ **Costs Saving**  
High absorbency rate and entire release of the control enables reduced quantity of antigens to be used

✓ **Minor antigen concentration**  
As flocked swabs yield a greater sample volume uptake and release, the use of antigens is therefore limited.

✓ **Possibility to quantify the antigen concentration**

✓ **Long Room Temperature Stability**

✓ **Clearer CUT-OFF bands**

✓ **MULTI-ANALITE Capability**

✓ **Customizable Quantitative and Qualitative QC Controls**

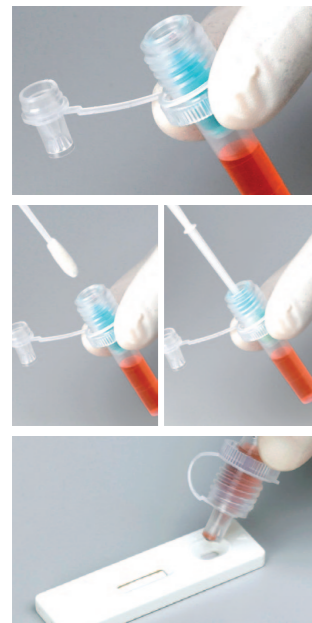
✓ **Quick reaction time**



For more information, visit our website in the FLOQControls™ section [www.copanflock.com](http://www.copanflock.com)

## SAMPLE PREPARATION SYSTEMS

### DROPPERS ONE OR TWO CHAMBERS TUBES



C-Series  
(press-on cap)



J-Series  
(screw cap)

Copan Flock Technologies offers a complete array of **custom engineered simple, compact, self contained sample preparation systems for Rapid Point of Collection Assays**. Samples are often collected in situations where the simplicity of sample preparation is of paramount importance to perform quick accurate rapid tests. Testing can be in a point-of-care (POC) scenario at a patient's bedside or at a roadside investigation when drugs of abuse are suspected. CFT's Sample Preparation Systems are preassembled, ready to use devices for sample preparation at the point of collection. CFT's sample processing tubes are made of soft flexible plastic, and when combined with the tethered dropper form a squeezable dispensing device, it can be used to apply one or more droplets onto a lateral flow test cartridge.

### PLUS FEATURES

**NO NEED FOR ADDITIONAL SAMPLE PREPARATION SUPPLIES**

#### CUSTOMIZED PRODUCTS

**Custom Design, Mold, and Fill Key Components for your Assay.**

Can be filled with one or two reagents for sample treatment depending upon the assay chemistry. Cap allows samples to be sealed and forwarded to a reference lab.

**CUSTOM FILTER RETAINS PARTICLES OR SEMI SOLID DEBRIS**

**SAMPLE PREPARATION DEVICES ARE CUSTOMIZABLE** and may include a combination of **sample processing tubes, reagents, tethered dropper, tube cap and FLOQSwab™**.

**PRE FILLED WITH TWO SEPARATE REAGENTS** which are kept separate until use.

**IDEAL FOR SINGLE SHOT TESTING**

### PnR CAP



**PnR**, an acronym for **Pierce-able and Re-sealable**, is the name of COPAN unique patent pending invention of **pierce-able and re-sealable screw caps** of various sizes designed to be applied to specimen collection tubes. The top of the cap is covered with a pierceable metallic foil film, which protects the Duck Bill valve until the moment of use. The PnR cap revolutionizes specimen management **by eliminating time consuming de-capping, re-capping, and repetitive stress injuries**. Also, the re-sealable feature ensures that specimens are immediately reclosed, eliminating the need to manually do that and avoiding potential contamination from tubes being open for prolonged periods of time.

### PLUS FEATURES

**ENABLES EASY ENTRY AND EXIT BY AUTOMATIC PIPETTING SYSTEMS**

**LOAD AND WALK AWAY:** no need to remove and replace tube caps during processing.

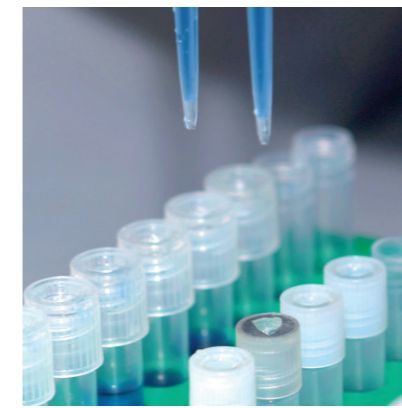
**THE PNR CAP, WHEN USED WITH AN AUTOMATIC PIPETTOR, ENABLES AUTOMATIC OPENING, SAMPLING, AND RECLOSING**

**AUTOMATICALLY AND QUICKLY RESEALS AFTER SAMPLING AND IS LEAKPROOF**

**REDUCES RISK OF REPETITIVE STRESS DISORDER BY ELIMINATING THE NEED TO CAP AND RECAP SAMPLES**

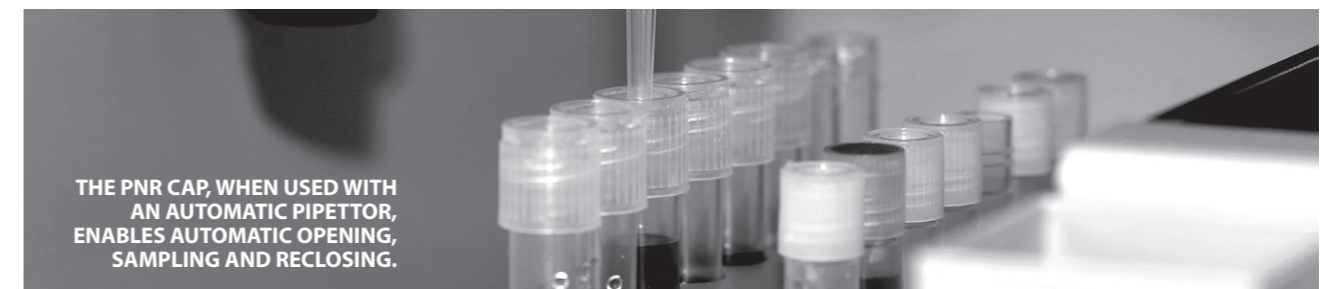
**UNIQUE DUCK BILL VALVE:** no risk of vacuum or positive pressure.

**SCALABLE DESIGN:** 16mm, 12mm and 10mm diameter.



### THIS NEW PLASTIC PnR CAP WORKS AS FOLLOWS:

- 1 - The PnR cap arrives sealed (with a foil seal), which prevents any leakage or evaporation.
- 2 - The automatic pipettor pierces through the foil seal and it breaks the membrane valve along a "micro-perforated" line.
- 3 - Then the automatic pipettor enters the tube. The pressure must equilibrate immediately. Otherwise, the volume uptake is hindered or compromised by the pressure.
- 4 - The liquid is taken up and then the automatic pipettor exits.
- 5 - The PnR cap's membrane valve will reconstitute within a few seconds to make the tube leakproof.



THE PNR CAP, WHEN USED WITH AN AUTOMATIC PIPETTOR, ENABLES AUTOMATIC OPENING, SAMPLING AND RECLOSING.

### NAO™ BASKET



**DNASE, RNASE-FREE AND HUMAN DNA FREE**

### This is not the ordinary spin basket...

The Nucleic Acid Optimizer is a special **plastic basket** that allows **fast and complete recovery of nucleic acids** from swab samples, card punches or other specimens into the sample tube.

NAO basket is designed with a collapsible bottom that allows **passage of all eluted DNA sample from the collection device (i.e. swab) during the high speed centrifugation step**, while guaranteeing the **perfect tightness of the system during vortexing**.

### PLUS FEATURES

**60% INCREASED RECOVERY OF DNA FROM THE SPECIMEN**

**ABILITY TO RELEASE ALL DNA** from the swab after high speed centrifugation

**PERFECT TIGHTNESS OF THE SYSTEM DURING VORTEXING:** demonstrated ability to retain different types of liquid after several vortexing times and storage conditions.

**SIGNIFICANTLY REDUCED MANIPULATION OF THE SAMPLE:** less labor intensive processing and risks of contamination.

**COMPATIBILITY AND PERFORMANCE WITH COMMERCIAL NUCLEIC EXTRACTION PLATFORMS**

### + 60% DNA RECOVERY

Laboratory tests show that a 60% increased recovery of nucleic acids can be achieved by processing the sample with NAO™ basket in comparison with standard procedures.



Please refer to our How-to Use Guides under the helpful links of our website to see different product combinations. [www.copanflock.com](http://www.copanflock.com)

		DNA recovered (pg/ul)	Average (pg/ul)
test n.1	with NAO	469,68	403,5
	with NAO	337,31	
	without NAO	257,92	268,51
	without NAO	279,09	
test n.2	with NAO	283,27	271,94
	with NAO	260,6	
	without NAO	175,32	165,19
	without NAO	155,05	
test n.3	with NAO	934,16	864,27
	with NAO	794,38	
	without NAO	578,63	480,56
	without NAO	382,48	







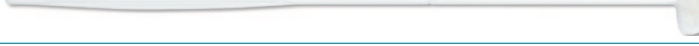

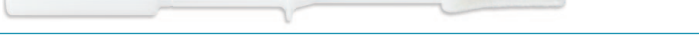

# ORDERING INFORMATION



## FLOQSwabs™ STERILE | Pkg: 1000 pcs (10 boxes of 100 pcs in a case)



\* Pkg: 500 pcs (10 boxes of 50 pcs in a case)

PRODUCT DESCRIPTION	BREAK POINT DISTANCE (from tip end)	PRODUCT CODE IN PEEL POUCH	PRODUCT CODE IN TUBE
<b>Regular</b> 	100 mm	519CS01	519C
	80 mm	502CS01	552C
	30mm	520CS01	520C
<b>Mini Tip</b> 	100mm	518CS01	518C
	80mm	501CS01	551C
<b>Ultra-Thin Minitip/Urethral</b> 	80mm	525CS01	560C
<b>Flexible Nasopharyngeal</b> 	100mm	503CS01	553C
	<i>not breakable</i>	534CS01	534C
<b>Mini Flexible Nasopharyngeal/Neonatal</b> 	100mm	516CS01	516C
	<i>not breakable</i>	535CS01	535C
<b>Endocervical</b> 	80mm	511CS01*	52980C
<b>L-Shaped Endo/Esocervical</b> 	80mm	570CS01*	N/A
<b>Saliva/Buccal Cells</b> 	<i>not breakable</i>	528CS01	528C
<b>Mid Turbinate Adult</b> 	80mm	56380CS01	N/A
<b>Mid Turbinate Pediatric</b> 	80mm	56780CS01	N/A
	50mm	56750CS01	N/A

Images not to scale

For 4N6FLOQSwabs™ please refer to the separate product brochure.



## CLASSIQSwabs™ STERILE | Pkg: 1000 pcs (10 boxes of 100 pcs in a case)



\* Pkg: 500 pcs (10 boxes of 50 pcs in a case)

APPLICATOR	SWAB TIP	PRODUCT CODE IN PEEL POUCH	PRODUCT CODE IN TUBE
Plastic	Rayon	167KS01	155C
Plastic	Polyester	164KS01	159C
Plastic	Vegetal protein coated	N/A	456C
Plastic Double	Rayon	N/A	167C*
Aluminum	Rayon	170KS01	160C
Aluminum	Polyester	175KS01	162C
Twisted Wire	Rayon	N/A	168C
Plastic Minitip	Rayon	184CS01	184C
Plastic Minitip	Polyester	185CS01	185C
Pastic Large Tip for environmental sampling	Rayon	A905BCS01	N/A
Wood	Cotton	165KS01	150C

## NUFoam™ STERILE | Pkg: 1000 pcs (10 boxes of 100 pcs in a case)



APPLICATOR	SWAB TIP	PRODUCT CODE IN PEEL POUCH	PRODUCT CODE IN TUBE
Plastic	Foam	131KS01	<i>On request</i>
Plastic Minitip	Foam	130KS01	<i>On request</i>

## FLOQControls™



FLU A, FLU B, FLU A&B COMBO, RSV, ADENO VIRUS, ROTA VIRUS, ADENO&ROTA VIRUS COMBO, HELICOBACTER PYLORI AND LEGIONELLA PNEUMOPHILA ANTIGENS FLOQCONTROLS ARE AVAILABLE FOR CUSTOMIZATION WITH YOUR SPECIFIC ASSAY.

## PnR CAP™ – Pierce-able and re-sealable cap

PRODUCT	PACKAGING	PRODUCT CODE
10mm diameter - PnR cap	5 x 100 pcs	087C
12mm diameter - PnR cap	5 x 100 pcs	088C
16mm diameter - PnR cap	5 x 100 pcs	089C

## DROPPERS – ONE OR TWO CHAMBERS TUBES

PRODUCT CODES DEFINITION BASED ON UNIQUE CUSTOMIZED REQUESTS (for filled or not filled dropper tubes).

**C - SERIES (press-on cap dropper)**  
Please contact our customer service and refer to this combination with **SAMPLE PREPARATION SYSTEM, C SERIES.**



**J - SERIES (screw cap dropper)**  
Please contact our customer service and refer to this combination with **SAMPLE PREPARATION SYSTEM, J SERIES.**



## NAO™ BASKET – Nucleic Acid Optimizer Basket

PRODUCT	PACKAGING	PRODUCT CODE
NAO™ Basket	5 x 50 pcs	3002C
NAO™ Basket + 2ml Eppendorf® Cuvette, in peel pouch	6 x 100 pcs	3002CS01
NAO™ Basket + 2ml Eppendorf® Cuvette + 4N6FLOQSwabs™ Regular Size, in peel pouch	6 x 100 pcs	3003CS01

## CUSTOMIZED SOLUTIONS

Besides the general product listing, Copan offers a variety of customization and engineering services in order to manage identification, chain-of-custody, traceability and packaging specific requirements.

**TRACEABILITY**  
FLOQSwabs can be univocally identified with customized labelling and barcoding (unique sequential barcodes, bi-dimensional barcodes).





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