

# Radiation Safety Essentials and Consumables

Essentials for the laboratory environment



# Radiation Safety Essentials and Consumables

From radiation shields and scintillation cocktails to decontaminants and waste bins, LabLogic offer a comprehensive selection of products for working with radioactive elements within the laboratory environment.

Contamination Control	3 - 4
Scintillation Counting Accessories	5 - 7
Scintillation Cocktails	8 - 10
Shielding and Storage	9 - 13
Waste Disposal	14 - 15



#### **Contamination Control**

#### LabClean™

A concentrated, economical and highly efficient solution for safe and fast removal of radioactivity from laboratory glassware, equipment and laboratory surfaces. It is also a superior general laboratory cleaner and degreaser.

will greatly accelerate the process. For surface contamination,

Biodegradeable and mild to the skin when diluted 1:50, LabClean is

Order Code	Product	Quantity
SG-CXX-01	LabClean™	1 Gallon
SG-CXX-02	LabClean™ (Supplied with spray-head)	1 Quart

#### Labmat™

Simplifies clean up and protects surfaces from stains and spills.

- Highly absorbent top surface traps water, dyes, corrosive chemicals and radioactive solutions.
- Flexible polyethylene backing prevents solutions from soaking through.

Order Code	Product	Dimensions	Quantit
CR-EXX-15	Labmat™ Roll	20" x 49 ft	
CR-EXX-16	Labmat <sup>™</sup> Sheets	20" x 24"	100/pk

#### LabWipes™

LabWipes<sup>™</sup> eliminate the dependence of results on the direction of the filter paper and time.

efficiency is achieved, giving reproducible results.

Order Code	Product	Quantity
CG-CXX-03	LabWipes™	100/pk



LabLogic 011/200 PM

## **Scintillation Counting Accessories**

#### **Safety Trays and Liners**

Spill trays provide a reusable work area with the added benefit of safe containment of spillages and lab bench protection.

- Three types available general purpose, radiation and biohazard.
- All trays come complete with one free liner.
- Additional liners available in packs of 25.

Order Code	Product	Dimensions	Quantity
CC-EXX-04	Radiation Hazard Tray, Yellow	18" x 10"	
CC-EXX-05	Radiation Hazard Tray, Yellow	21" x 13"	
CC-EXX-06	Radiation Hazard Tray, Yellow	22" x 21"	
CC-EXX-07	Radiation Hazard Tray, Yellow	27" x 21" (for cabinet)	
CC-EXX-08	Radiation Hazard Tray, Yellow	28" x 18"	
CC-EXX-09	Liners	18" x 10"	25/pk
CC-EXX-10	Liners	21" x 13"	25/pk
CC-EXX-11	Liners	22" x 21"	25/pk
CC-EXX-12	Liners	27" x 21" (for cabinet)	25/pk
CC-EXX-13	Liners	28" x 18"	25/pk

#### **Stainless Steel Trays**

Stainless steel trays confine radiologicals, hazardous chemicals, acids and other potential contaminants.

- For maximum protection trays can be lined with absorbent covering.
- Available in three convenient sizes.

Order Code	Product	Dimensions
CR-EXX-21	Stainless Steel Work Tray	15" x 11" x 0.75"
CR-EXX-22	Stainless Steel Work Tray	19" x 13" x 0.75"
CR-EXX-23	Stainless Steel Work Tray	21" x 17" x 0.87"



#### **Scintillation Counting Accessories**

#### **Bottle-top Reagent Dispenser**

A precision quality bottle-top dispenser which attaches easily to all common reagent bottles with adapters supplied.

- Dispenses and reagent (except HF) with an accuracy of 0.7% and reproducibility of -≤0.1%.
- Constructed of chemical and heat resistant materials for trouble free performance and durability. Entire dispenser can be autoclaved at 121°C without disassembly.
- Positive locking selector allows precise dispensing over the entire volume range.
- Supplied complete with three bottle-top adaptors, discharge outlet and suction tube.

Order Code	Product
CR-DXX-10	Dispenser, 0 - 0.08 fl oz
CR-DXX-11	Dispenser, 0.03 - 0.2 fl oz
CR-DXX-12	Dispenser, 0.07 - 0.3 fl oz
CR-DXX-13	Dispenser, 0.07 - 0.3 fl oz
CR-DXX-14	Dispenser, 0.3 - 2 fl oz



A versatile acrylic container which provides a convenient system for storing or transporting scintillation vials.

- Container holds one tray of scintillation vials (100 x 0.7 fl oz) and can be stacked for maximum storage space.
- Removeable end panel allows vial tray to be easily inserted and removed.
- Constructed of clear acrylic that also provides beta radiation shielding.
- Can be stored in freezers at temperatures down to -70°C.

The trays and partitions provide economical storage for 0.7 fl oz capacity glass or plastic vials.

- The corrugated tray assembles quickly without staples or tape.
- Smooth white surface promotes a clean looking exterior.
- Partitions have individual compartments that separate each vial.
- Accommodates 100 vials in a 10 x 10 configuration.

Order Code	Product	Dimensions	Quantity
CR-DXX-15	Scintillation Vial Storage Container	13" x 13" x 3"	
CR-EXX-01	Cardboard Tray 100 Divisions 0.7 fl oz size vial	Tray: 13" x 13" x 3" Partition: 12" x 12" x 2"	10 trays and partitions/pk



## **Scintillation Counting Accessories**

#### Scintillation Vial Racks

Ideal for use when processing samples or transporting scintillation vials.

- Racks available to accommodate full size (20 ml) vials or miniature size 5 - 8 ml) vials.
- Heavy duty polypropylene trays have excellent chemical resistance and can be autoclaved

Order Code	Product	Quantity
CR-EXX-02	Heavy Duty Polypropylene Trays, 0.7 fl oz x 50	2 trays/pk
CR-EXX-03	Heavy Duty Polypropylene Trays, 0.3 fl oz x 90	2 trays/pk

#### ViaLogic Scintillation Vials

A range of low background glass vials, plastic vials and miniature vials for liquid scintillation counting applications.

Order Code	Product
CM-DXX-16	ViaLogic Glass Vials, 0.7 fl oz (HGH Reflection Caps)
CM-DXX-17	ViaLogic Glass Vials, 0.7 fl oz (Polycone Caps)
CM-DXX-18	ViaLogic Glass Vials, 0.3 fl oz (Poly Lined Caps)
CM-DXX-19	ViaLogic Plastic Vials, 0.7 fl oz
CM-DXX-20	ViaLogic Push On/Screw Off Small Vials, 0.2 fl oz
CM-DXX-21	ViaLogic PUSH Small Vials, 0.2 fl oz
CM-DXX-22	ViaLogic Triathler Gamma Vials, 0.2 fl oz
CM-DXX-23	ViaLogic Frosted Glass Vials, 0.2 fl oz
CM-DXX-24	ViaLogic Teflon Coated Plastic Vials, 0.7 fl oz



#### FlowLogic U

An advanced, low viscosity, high uptake multi-purpose cocktail for flow applications.

- Accepts a wide range of HPLC gradients at 1:1 ratio, providing high counting efficiency (25% <sup>3</sup>H efficiency at 1:1 cocktail/sample).
- Even difficult samples such as 0.1 N NaOH mix rapidly to yield a clear, non-viscous emulsion.

Order Code	Product	Quantity
SG-BXX-19	FlowLogic U	1 Gallon
SG-BXX-05	FlowLogic U	4 x 1 Gallon
SG-BXX-06	FlowLogic U	5 Gallon Drum

#### FlowLogic HA

A flow cocktail specifically designed for highly aqueous samples up to ratios of 2:1 scintillator to sample.

Order Code	Product	Quantity
SG-BXX-23	FlowLogic HA	1 Gallon
SG-BXX-10	FlowLogic HA	4 x 1 Gallon
SG-BXX-13	FlowLogic HA	5 Gallon Drum

#### FlowLogic HS

Ideal for use in on-line HPLC flow detectors as well as in traditional static counting.

- Formulated to accommodate high salt and buffer samples whilst still delivering a biodegradeable scintillation cocktail with high efficiency.
- Low viscosity and non-gelling.

Order Code	Product	Quantity
SG-BXX-21	FlowLogic HS	1 Gallon
SG-BXX-08	FlowLogic HS	4 x 1 Gallon
SG-BXX-11	FlowLogic HS	5 Gallon Drum

#### FlowLogic SS

A non-gelling replacement for gel forming cocktails.

- Odourless and non-flammable, it accepts a wide range of concentrations and strengths. Providing the solution is clear it will be stable.
- Allows the dissolution of aqueous solutions to at least 2.5 ml per 10 ml without gels or thick liquids.

Order Code	Product	Quantity
SZ-BXX-06	FlowLogic SS	2 x 1.3 Gallon

#### SoFie Scint

An extremely low viscosity cocktail with a very high sample uptake capacity, making it ideal for use with the SoFie Stop-Flow System where extremely low levels of activity are being detected.

 Accepts a wide range of HPLC gradients at a 1:1 ratio, making samples less dilute and improving detection sensitivity.

Order Code	Product	Quantity
SG-BXX-20	SoFieScint	1 Gallon
SG-BXX-07	SoFieScint	4 x 1 Gallon
SG-BXX-17	SoFieScint	5 Gallon Drum

#### ScintLogic U

A multi-purpose scintillation cocktail which accepts a wide range of samples at a 1:1 ratio.

- Even difficult samples such as a 0.1N NaOH mix rapidly to yield a clear, non-viscous emulsion.
- Provides high counting efficiency (25% <sup>3</sup>H efficiency at 1:1 cocktail/sample).

Order Code	Product	Quantity
SG-BXX-24	ScintLogic U	1 Gallon
SG-BXX-01	ScintLogic U	4 x 1 Gallon
SG-BXX-14	ScintLogic U	5 Gallon Drum

#### ScintLogic HC

A safe scintillation cocktail for aqueous samples, it has a high counting efficiency for low to medium iconic strength aqueous solutions, including saline.

- Many biological solutions can be counted without pre-treatment, including albumin and serum.
- Sample uptake is up to 3 ml per 10 ml.
- Tissue solubilisers and other alkaline solutions will not cause chemiluminescence with ScintLogic HC.

Order Code	Product	Quantity
SZ-BXX-01	ScintLogic HC	2 x 1.3 Gallon



#### **Shielding and Storage**

#### ScintLogic E

Safe and non-flammable, it allows for the dissolution of aqueous solutions to at least 2.5 ml per 10 ml without gels or thick liquids.

Accepts a wide range of concentrations and ionic strengths.
 Providing the solution is clear it will be stable.

Order Code	Product	Quantity
SZ-BXX-03	ScintLogic E	2 x 1.3 Gallon

#### FlowLogic LW

The highest efficiency, low toxicity biodegradeable scintillation cocktail available.

- Specifically designed to provide the maximum counting efficiency for aqueous sample volumes under 10% of the total liquid scintillation volume.
- Highly resistant to photoluminescence and chemiluminescence, which is very important when counting biological samples or acrylamide gel slices.

Order Code	Product	Quantity
SG-BXX-27	ScintLogic LW	1 Gallon
SG-BXX-04	ScintLogic LW	4 x 1 Gallon
SG-BXX-16	ScintLogic LW	5 Gallon

#### ScintLogic MM

Offers high counting efficiency and high sample hold capacity.

- Stable over a wide temperature range it avoids false results due to sample separation in cooled counters.
- High sample uptake, 5 ml sample per 10 ml of cocktail, makes it the ideal choice for economical counting.

Order Code	Product	Quantity
SG-BXX-02	ScintLogic MM	2 x 1.3 Gallon

#### ScintLogic X

Designed for use with non-aqueous samples.

- Biodegradeable, has a high flash point and low toxicity.
- Offers improved quench resistance and lower background counts compared to non-biodegradeable solutions.

Order Code	Product	Quantity
SG-BXX-26	ScintLogic X	1 Gallon
SG-BXX-03	ScintLogic X	4 x 1 Gallon
SG-BXX-15	ScintLogic X	5 Gallon Drum



#### **Beta Radiation Shields**

A range of shields in a variety of shapes and sizes, with two styles of base ideal for different applications.

The flat base is 300 x 300 mm and offers under bench protection. The curved base is 150 mm deep and is designed for use in conjunction with a safety spill tray.

Order Code	Product
CC-FXX-01	Beta Shield, Small fixed 15° angle, Flat base
CC-FXX-02	Beta Shield, Small fixed 15° angle, Curved base
CC-FXX-03	Beta Shield, Large fixed 15° angle, Flat base
CC-FXX-04	Beta Shield, Large fixed 15° angle, Curved base
CC-FXX-05	Beta Shield, Small fixed 45° angle, Flat base
CC-FXX-06	Beta Shield, Small fixed 45° angle, Curved base
CC-FXX-07	Beta Shield, Large fixed 45° angle, Flat base
CC-FXX-08	Beta Shield, Large fixed 45° angle, Curved base
CC-FXX-09	Beta Shield, 3 sided
CC-FXX-10	Beta Shield, Hourglass, Flat base
CC-FXX-11	Beta Shield, Hourglass, Curved base
CC-FXX-12	Beta Shield, Adjustable
CC-FXX-13	Beta Base Plate

# Beta and Gamma Pipette Shields

Order Code	Product
CC-FXX-41	Pipette Shield, Biohit PS1000 Beta
CC-FXX-42	Pipette Shield, Biohit PS200 Beta
CC-FXX-43	Pipette Shield, Biohit PS5000 Beta
CC-FXX-44	Pipette Shield, Gilson P1000 Beta
CC-FXX-45	Pipette Shield, Gilson P20/100 Beta
CC-FXX-46	Pipette Shield, Gilson P200 Beta
CC-FXX-47	Pipette Shield, Biohit PS1000 Gamma
CC-FXX-48	Pipette Shield, Biohit PS200 Gamma
CC-FXX-49	Pipette Shield, Biohit PS5000 Gamma
CC-FXX-50	Pipette Shield, Gilson P1000 Gamma
CC-FXX-51	Pipette Shield, Gilson P20/100 Gamma
CC-FXX-52	Pipette Shield, Gilson P200 Gamma



#### **Shielding and Storage**

### **Shielding and Storage**

#### Flexible Lead Foil

Flexible lead foil is ideal for wrapping around tubes, bottles or containers that require shielding from <sup>125</sup>I.

- Cuts and forms easily into almost any shape required.
- Supplied in 355 mm wide rolls in three thicknesses.

Order Code	Product	Dimensions	Weight
CR-IXX-04	Flexible Lead Foil	22 ft x 0.006"	9.9 lb
CR-IXX-05	Flexible Lead Foil	9 ft x 0.01"	9.9 lb
CC-IXX-06	Flexible Lead Foil	5 ft x 0.03"	9.9 lb

#### Rad-5 Lock Box™

Constructed of 10 mm thick heavy duty clear acrylic with a built-in cylinder key lock and tamper resistant hinges, the Rad-5 Lock Box™ is ideal for storing, handling and transporting assorted small bottles, vials and tubes.

- Large interior can be filled with crushed ice to keep samples cold.
- Safe for storage in a freezer to -70°C.

Order Code	Product	Dimensions
CR-FXX-74	Rad-5 Lock Box™	11" x 7" x 5"
CR-FXX-75	Rad-5 Lock Box™	11" x 7" x 5"
CR-FXX-76	Rad-5 Lock Box™	13" x 9.8" x 7"
CR-FXX-77	Rad-5 Lock Box™	13" x 9" x 7"

### Lead Acrylic Storage Boxes, Bench Top Shields, Rack Inserts

LabLogic's range of acrylic bench top shields provide shielding for low energy gamma emitters such as <sup>125</sup>I.

Order Code	Product	Dimensions
CC-FXX-82	Gamma Shield, Flat base, Large fixed 15° angle	Shield: 0.5" x 14" x 21", Base: 0.5" x 14" x 12"
CC-FXX-83	Gamma Shield, Curved base, Large fixed 15° angle	Shield: 0.5" x 14" x 21"
CC-FXX-84	Gamma Shield, Flat base, Small fixed 15° angle	Shield: 0.5" x 12" x 18", Base: 0.5" x 12" x 12"
CC-FXX-85	Gamma Shield, Curved base, Small fixed 15° angle	Shield: 0.5" x 12" x 18"
CC-FXX-86	Gamma Shield, Flat base, Large fixed 45° angle	Shield: 0.5" x 14" x 24", Base: 0.5" x 14" x 12"
CC-FXX-87	Gamma Shield, Curved base, Large fixed 45° angle	Shield: 0.5" x 14" x 18"
CC-FXX-88	Gamma Shield, Flat base, Small fixed 45° angle	Shield: 0.5" x 14" x 18", Base: 0.5" x 14" x 12"
CC-FXX-89	Gamma Shield, Curved base, Small fixed 45° angle	Shield: 0.5" x 12" x 18"





CC-FXX-90	Gamma Shield, 3-sided	Front: 0.5" x 18" x 20", Base: 0.5" x 12" x 20"
CC-FXX-91	Gamma Shield, Flat base Hourglass	Front: 0.5" x 12" x 18", Base: 0.5" x 12" x 12"
CC-FXX-92	Gamma Shield, Curved base, Hourglass	Front: 0.5" x 12" x 18"
CC-FXX-93	Gamma Base Plate	0.5" x 18" x 16"
CC-FXX-94	Gamma Shield, Adjustable	0.5" x 14" x 21", 0.5" x 21" x 14"
CC-FXX-95	Gamma Shield, Adjustable	1" x 14" x 21", 1" x 21" x 14"
CC-FXX-96	Duo Shield, Curved base, Beta/Gamma	0.5" x 8" x 18"
CC-FXX-97	Gamma Storage/Transport Box	5" x 2" x 2.5"
CC-FXX-98	Gamma Box, 0.2 Gallon	3" x 4" x 5"
CC-FXX-99	Gamma Box, 1.7 Gallon	6" x 11" x 5.5"
CC-FXX-100	Gamma Tip Box, 0.5 Gallon	5" x 5" x 5"
CC-FXX-101	Gamma Multi Tip Box, 0.5 Gallon	5" x 5" x 5"
CC-FXX-102	Gamma Bin, 0.8 Gallon	6" x 6" x 6"
CC-FXX-103	Gamma Bin, 2.6 Gallon	7.8" x 7.8" x 7.8"
CC-FXX-104	Gamma Bin, 4 Gallon	9" x 8.4" x 15"
CC-FXX-105	Gamma Bin, 14 Gallon	10.5" x 19" x 15.5"
CC-FXX-106	Gamma Box Mini	2" x 3.3" x 2"
CC-FXX-107	Gamma Box Midi	3.3" x 6.5" x 2.3"
CC-FXX-108	Gamma 2 Pig-pen Box	2.3" x 4" x 2.7"
CC-FXX-109	Gamma Work Cabinet	14.5" x 21.6" x 19"
CC-FXX-110	Gamma Carboy Cover	15" x 15" x 23"
CC-FXX-111	Gamma Box, 3.5 L	6" x 6.8" x 5.5"
CC-DXX-29	CC-DXX-29 Insert, 15 x 15 ml Centrifuge Tubes (fits CC-FXX-99)	
CC-DXX-30	Mini Insert, 16 x 1.5 ml Tubes (fits CC-FX	X-106)
CC-DXX-31	Insert, 8 x 50 ml Centrifuge Tubes (fits Co	C-FXX-99)
CC-DXX-32	Mini Insert, 20 x 0.5 ml Tubes (fits CC-FX	X-106)
CC-DXX-33	Insert, 3 x Falcon Tubes, 8 x 1.5 ml Tubes (fits CC-FXX-99)	
CC-DXX-34	Midi Insert, 32 x 1.5 ml Eppendorf Tubes (fits CC-FXX-107)	
CC-DXX-35	Insert, 2 x Falcon Tubes, 8 x 1.5 ml Tubes (fits CC-FXX-99)	
CC-DXX-36	Midi Insert, 40 x 1.5 ml Eppendorf Tubes	(fits CC-FXX-107)
CC-DXX-37	Insert, 8 x 20 ml Scintillation Vials (fits C	C-FXX-99)
CC-DXX-38 Insert, 15 x 5 ml Scintillation Vials (fits CC-FXX-99)		C-FXX-99)
CC-DXX-39	Insert, 8 x Universal (fits CC-FXX-99)	
CC-DXX-40 Midi Insert, 16 x 1.5 ml and 16 x 0.5 ml Tubes (fits CC-FXX-107)		Tubes (fits CC-FXX-107)
CC-DXX-41	Midi Insert, 32 x 2 ml Cryotubes (fits CC-	FXX-107)

#### **Custom Shielding**

Custom made acrylic, lead acrylic shields and storage boxes.

Contact our office for a quotation.

Order Code Product





#### **Waste Disposal**

#### Rad-Can<sup>™</sup> 1

Ideal for micro-tubes and pipette tips.

• 0.3" thick clear acrylic.

Order Code	Product	Dimensions	Quantity
CR-FXX-53	Rad-Can <sup>™</sup> 1	7" x 7" x 8"	
CR-HXX-01	Clear Liner for Rad-Can <sup>™</sup> 1		100/pk

#### Rad-Can<sup>™</sup> 2

Holds one 4 litre polyethylene bottle.

- Open/close funnel port.
- 0.3" thick clear acrylic.

Order Code	Product	Dimensions
CR-FXX-57	Rad-Can <sup>™</sup> 2	4.5" x 4.5" x 6.6"
CR-HXX-03	Storage Bottle for Rad-Can™ 2, 1 Gallon	

#### Beta Shield Waste Container System

Designed for storing contaminated items such as micro-tubes, pipette tips, gloves, and glassware, the complete system consists of a 10 mm thick clear acrylic container shield, heavy duty waste receptacle, and 3 mm poly liner. Each item is available separately.

• Heavy duty carton stores up to 0.06 m³ of waste with a weight capacity of 75 lbs.

Order Code	Product	Dimensions	Quantity
CR-HXX-06	Corrugated Waste Box	12" x 12" x 25"	25/cs
CR-HXX-07	Heavy Duty Poly Liner	24" x 7.6" x 0.1"	25/cs

#### **Beta Tip Box**

Can be used in conjunction with drawstring bags to give a convenient and visible area to dispose of radioactively contaminated tips.

• Available for single channel pipettes and for multi-channel pipettes.

CC-FXX-69 Beta Tip Box, 0.5 Gallon	
	3ox, 0.5 Gallon
CC-FXX-70 Beta Multi-Tip Box, 0.5 Gallon	ti-Tip Box, 0.5 Gallon
CC-FXX-71 Beta Tip Box, Large, 1.3 Gallon	3ox, Large, 1.3 Gallon







#### **Rad Lock Boxes**

Designed for storing radioactive liquid waste, or contaminated items such as gloves, tips, tubes and glassware.

- 0.3" thick clear acrylic.
- Optional castors.

Order Code	Product	Dimensions
CR-FXX-81	Rad-2 Lock Box™	7" x 7" x 15"
CR-HXX-19	Polyethylene Bottle, 1 Gallon	
CR-FXX-80	Rad-3 Lock Box™	13" x 13" x 23"
CR-HXX-17	Polyethylene Carboy, 5 Gallon	
CR-HXX-18	Set of 4 castors	



#### Radioactive Material Waste Bags

Clear and yellow tinted bags produced in heavy duty polyethylene.

• Available in a range of convenient sizes.

Order Code	Product	Dimensions	Quantity
CR-HXX-20	Printed Bags, Yellow	7.8" x 6" x 15"	100/pk
CR-HXX-22	Printed Bags, Yellow	11" x 11" x 30"	100/pk
CR-HXX-23	Printed Bags, Yellow	24" x 36"	250/roll



#### **Hazard Signs**

A range of tapes and labels for designating radioactive areas and vessels.

Order Code	Product	Dimensions	Quantity
CC-DXX-25	Radiation Labels	1" x 1"	25/pk
CC-DXX-26	Radiation Labels	2" x 2"	25/pk
CC-DXX-27	Radiation Tape	1"	1/pk



Drawstring bags in various sizes available. Further information is available on request.





#### Visit our website



#### Download the brochure



#### USA & Canada

LabLogic Systems, Inc.
3901 Centerview Drive, Suite B
Chantilly, VA 20151, USA
E-mail: solutions@lablogic.com

E-mail: solutions@lablogic.com Tel: +1-703-429-4209

www.lablogic.com



#### Europe & Worldwide

LabLogic Systems Limited Innovation House, 6 Europa View Sheffield, S9 1XH, UK

E-mail: solutions@lablogic.com Tel: +44 (0)114 266 7267

www.lablogic.com



INVESTORS IN PEOPLE\*
We invest in people Gold

