## **COUNT-OFF**<sup>™</sup>

## Liquid Concentrate Radioactivity Decontaminant

# Fast, effective **COUNT-OFF** – the ideal all-purpose decontaminant

COUNT-OFF Liquid Concentrate cleans up even the most persistent left-overs:

- radioactive residues
- stopcock and vacuum greases
- lanolin
- petroleum jelly
- dried blood and serum
- fatty and amino acids
- protein complexes
- polymer films and other stubborn residues

## Mild and efficient **COUNT-OFF** is *economical too*!

- superior decontamination
- 2% working solution extremely effective solution for the removal of radioactivity from the surfaces of laboratory glassware and equipment – mild to hands without toxic vapors associated with chromic acid
- pump dispenser makes measuring COUNT-OFF easy and accurate no spills or waste, so COUNT-OFF lasts and lasts
- non-reactive emulsifiers
- efficient substrate removal
- economical to use

## Safe and stable

COUNT-OFF is safe and stable under extreme temperature fluctuations (from -50 °C to 150 °C). At 2% concentration, the COUNT-OFF solution is a mild reagent with alkalinity equivalent to a  $10^{-2}$  molar sodium hydroxide solution, mild to the skin. Moreover, COUNT-OFF solution will not produce toxic gases from substrates containing <sup>14</sup>C, <sup>131</sup>I, <sup>35</sup>S or <sup>36</sup>CI, known to be produced by strongly acidic cleaners such as chromic acid.

## CAUTION

As with all slightly alkaline cleaning solutions, COUNT-OFF, diluted for normal use, can attack amphoretic metals such as aluminum and zinc. These surfaces should either be cleaned with utmost care to avoid possible etching or cleaned with a different and non alkaline surfactant system.

### **COUNT-OFF**<sup>™</sup> Radioactive Decontaminant Fast, effective, is the superior radioactivity decontaminant and laboratory cleaner

At NEN's radiochemical synthesis laboratories, we constantly evaluate decontaminant solutions. Our corporate Analytical Laboratory compared COUNT-OFF Liquid Concentrate with four widely used decontaminant solutions under strict controls.

We are proud to publish the following results:

#### TEST # 1 FASTEST ACTION

Most effective fast-action decontamination (one hour at 50 °C) COUNT-OFF surpasses all others in overall capacity to remove residual activity.

	% Activity Remaining After One Hour At 50 ℃									
DECONTAMINANT	<sup>3</sup> H AMINO		14C AMINO		32P		125I BOVINE		TOTAL	TOTAL
AT RECOMMENDED	ACID		ACID		PHOSPHORIC		SERUM		POINTS	RATING
CONCENTRATION	MIXTURE		MIXTURE		ACID		ALBUMIN			
COUNT-OFF™	0.24	#1	0.11	#1	<0.01	#1	0.05	#1	4	#1
2.0% solution										
PRODUCT A	1.92	#5	8.22	#5	0.09	#5	15.0	#5	20	#5
2.5% solution										
PRODUCT B	0.34	#2	1.23	#2	< 0.01	#1	0.13	#2	7	#2
2.0% solution										
PRODUCT C	0.50	#4	2.24	#4	<0.01	#1	0.23	#4	13	#4
0.75% solution										
PRODUCT D	0.36	#3	1.79	#3	< 0.01	#1	0.13	#2	9	#3
2.0% solution										

#### **TEST # 2**

#### MOST EFFECTIVE DECONTAMINANT

Most effective 24-hour decontamination (at room temperature) Tested at ambient temperatures, COUNT-OFF outperformed all other products.

	% Activity Remaining After 24 Hours At Room Temperature									
DECONTAMINANT	<sup>3</sup> H AMINO		14C AMINO		32P		125I BOVINE		TOTAL	TOTAL
AT RECOMMENDED	ACID		ACID		PHOSPHORIC		SERUM		POINTS	RATING
CONCENTRATION	MIXT	JRE	MIXTURE		ACID		ALBUMIN			
COUNT-OFF™	0.13	#1	0.29	#1	<0.01	#1	0.01	#1	4	#1
2.0% solution										
PRODUCT A	1.95	#5	7.89	#5	0.06	#5	7.5	#5	20	#5
2.5% solution										
PRODUCT B	0.35	#2	2.63	#4	<0.01	#1	0.17	#2	9	#2
2.0% solution										
PRODUCT C	0.45	#4	1.96	#3	<0.01	#1	0.30	#4	11	#4
0.75% solution										
PRODUCT D	0.48	#3	1.56	#2	<0.01	#1	0.26	#3	10	#3
2.0% solution										

## # 1 Decontaminant for each isotope - COUNT-OFF

Packard Tricarb 3385, 50-1000 window <sup>3</sup>H=50% gain, <sup>14</sup>C=7% gain, <sup>32</sup>P=1% gain, <sup>125</sup>I=30% gain

## **Liquid Concentrate**

For most applications, COUNT-OFF Liquid Concentrate should be diluted to 1:49, COUNT-OFF : warm water. Tests show that residual <sup>14</sup>C, <sup>3</sup>H, and <sup>32</sup>P activity on glassware is typically reduced to 0.3% or less of its original level following a 24-hour room temperature soak in 2% COUNT-OFF and rinsing. More stubborn substances, for example, those containing <sup>59</sup>Fe and <sup>131</sup>I, respond to soaking in a 5% COUNT-OFF concentration for two hours at 50 °C. Faster decontamination can be achieved by simply increasing the COUNT-OFF concentration and raising the solution temperature. Ultrasonic or manual agitation will greatly accelerate the decontamination process.

6NE9422	 1x2.5L
6NE9427	 4x2.5L

Store ambient Shipped ambient

## **Aerosol Spray Surface Cleaner**

- foam traps and confines spills, preventing spreading of contamination
- ideal for hard-to-reach corners
- non-corrosive, safe for all laboratory surfaces

COUNT-OFF<sup>™</sup> Spray Surface Cleaner makes quick work of decontaminating small radioactive spills. Foaming action traps and suspends radioactive particles for easy wiping away. COUNT-OFF Spray will effectively remove both ionic and non-polar radioactivity as well as stubborn substances like grease, resins, blood, and wax – even from rough surfaces. Its ability to confine a spill makes COUNT-OFF Surface Cleaner a safety essential. With contamination suspended in foam, further contamination of hands and clothing is less likely.

COUNT-OFF Aerosol Spray Surface Cleaner is perfect for small or difficult-to-reach spots like instrument housings, hood corners, centrifuge cups and heads, and LSC counter mechanisms. It is equally useful in routine decontamination of exposed laboratory surfaces, including benches, shields, and appliances. Non-corrosive COUNT-OFF Surface Cleaner can be used with confidence on glass, metal, wood, painted and plastic laboratory and instrumentation surfaces.

6NE942T ...... 6 x 22oz. (650 mL) cans

Store ambient Shipped ambient