

**DE MINIMIS QUANTITY VERIFICATION  
LIQUID SCINTILLATION MEDIA (NO VIALS)**

**RS-17**  
Jun. 2012

RS Use Only, RS-ID Number: \_\_\_\_\_

<b>Supervisor</b>		<b>Building</b>	
<b>Radionuclide</b>	___ H-3      ___ C-14	<b>Room Number</b>	
<b>Counting media trade name</b>		<b>Carcinogen (Yes or No)</b>	

<b>Calculation to verify waste as de minimis waste</b>		
<b>A.</b>	<b>From your bulk waste container, withdraw a 1 ml sample and determine the cpm; enter the result</b>	<b>cpm/ml</b>
<b>B.</b>	<b>Enter your counter efficiency</b>	
<b>C.</b>	<b>Divide the cpm from line A by counter efficiency to convert to disintegrations per minute (dpm).</b>	<b>dpm/ml</b>
<b>D.</b>	<b>Divide the results from line C by <math>2.22 \times 10^6</math> dpm/<math>\mu</math>Ci and enter the result</b>	<b><math>\mu</math>Ci/ml</b>
<b>E.</b>	<b>Is the result obtained in line D less than or equal to 0.05 <math>\mu</math>Ci/ml? (enter yes or no)</b>	

**If you entered “no” on line E then stop. Your waste is not de minimis and must be disposed of as “hot” waste.**

<b>F.</b>	<b>If your answer on line E is “yes,” enter an estimate of the total activity for this waste container</b>	<b><math>\mu</math>Ci</b>
<b>G.</b>	<b>Any other known hazards or pathogen other than radioactivity? (enter yes or no)</b>	
<b>H.</b>	<b>If line G was “yes,” list these hazards</b>	

## **Overview**

The RS-17 is a single-page form to be used for the verification of de Minimis status for Bulk Liquid Scintillation (LS) Cocktail containing  $^3\text{H}$  and  $^{14}\text{C}$  only. The form is to be complete and the original(s) attached to the outside of each container. One form must be completed for each container. If you have a container with both  $^3\text{H}$  and  $^{14}\text{C}$ , list both in the space marked “Radionuclide”, separating them with a comma. Continue through the calculations for each nuclide following the same convention. No parts of these instructions apply for decay-in-storage bulk LS containers.

## **Completing the Form**

In the first part of the form, simply complete as appropriate. For “Counting media trade name,” fill-in the trade name of the cocktail you are using, e.g. “Scintiverse.” If you are using “standard” chemicals, e.g. “Toluene,” then the trade name is not necessary, simply write-in the chemical you are using.

Complete the bottom section of the form, if the answer to “E” is “No,” then you must dispose of the waste as “hot bulk liquid;” and the waste will be billable. Otherwise there is no charge for the disposal of de minimis waste.

- After completion of the form and if the answer to “E” is “Yes,” schedule the waste for pickup using the HP Assistant web-based record keeping system.

Waste pick-ups are scheduled one week, in advance.