

9443.1987(04)

OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE

MAR 11 1987

Mr. Lawrence D. Aniballi  
Research Products International Corporation  
410 North Business Center Drive  
Mount Prospect, Illinois 60056

Dear Mr. Aniballi:

This is in response to your letter of December 16, 1986, in which you requested an interpretation of the regulatory status of your liquid scintillation counting cocktail, Bio-Safe II, under the Federal hazardous waste regulations.

Based on telephone conversations you had with Miss Filomena Chau, of my staff, and your letter of January 12, 1987. Bio-Safe II contains less than 0.05 microcuries of radioactive tritium (hydrogen-3) and carbon 14; in addition, this material contains the following scintillators: primary scintillator of PPO: 2,5diphenyloxazole; secondary scintillator of Butyl PBD: 2-(4'-tbutylphenyl)-5-4''biphenyl)-1,3,4 oxadiazole.

The waste, as you described, does not seem to be subject to the Nuclear Regulatory Commission regulations under 10 CFR 20.306(a), since your waste contains less than 0.05 microcuries of hydrogen-3 and carbon-14 per gram of medium. However, your waste appears to be subject to 10 CFR 20.306(d), which states that the generator is not relieved from complying with other applicable Federal, State, and local regulations governing any other toxic or hazardous property of these materials. EPA's hazardous waste management regulations would be an example of such "applicable regulations."

Thus, you must compare the characteristics of your waste against the criteria outlined in 40 CFR Part 261 (see enclosure) to determine whether or not your waste is hazardous. Specifically, you must determine whether your waste exhibits any of the characteristics of hazardous waste (see 40 CFR Part 261, Subpart C, "Characteristics of Hazardous Waste"), or whether your waste is a listed hazardous waste (see 40 CFR 261, Subpart D, "Lists of Hazardous Waste").

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With respect to the hazardous waste characteristics, you must determine whether your liquid scintillation counting cocktail is ignitable, corrosive, reactive, or toxic. Liquid ignitable wastes are defined under §261.21 as those with a flash point of less than 140°F. Corrosive wastes are defined under §261.22 as those having a pH of less than or equal to 2 or greater than or equal to 12.5 or is able to corrode steel at a rate greater than 6.35 mm (0.250 inches per year at a test temperature of 55°C (130°F)). Reactive wastes are defined under §261.23 as those exhibiting any of eight properties (see the attached regulations). Section 261.24 defines the characteristic of extraction procedure (EP) toxicity and indicates the test methods to be used to identify the presence of this characteristic for any contaminants listed in Table I of the Section.

Your letter stated that your waste has a flashpoint of greater than 300°F, greater than the highest flash point of regulatory concern, 140°F. The ingredients of Bio-Safe II, as you described, are not any of the contaminants listed in Table I of §261.24; thus Bio-Safe II does not seem to be EP toxic. Your letter did not address whether Bio-Safe Ii was corrosive or reactive. In addition, neither liquid scintillation cocktails nor laboratory wastes, as a general category, are presently listed as hazardous wastes under §261.30-.33. Therefore, provided the liquid scintillation cocktail is not corrosive or reactive, it does not appear to be a hazardous waste.

However, each generator is still responsible for determining whether or not their waste is hazardous. See 40 CFR 262.11. In addition, you will need to check with you State or local authorities to determine whether this waste is regulated under their authority.

If you have any further questions, please contact Miss Filomena Chau (202-382-4795) of my staff.

Sincerely,

Original Document signed

Matthew A. Straus, Chief  
Waste Characterization Branch

Enclosure

cc: Michael Bandrowski (ANR-460)  
Paul Friedman (WH-562B)  
Filomena Chau (WH-562B)