

## TECHNICAL DATA SHEET

### Econo-Safe™ Economical Biodegradable Counting Cocktail

111175, 111175-CS, 111176

Econo-Safe™ is a complete ready-to-use cocktail that will accommodate both aqueous and non-aqueous organic samples. Econo-Safe™ is specially formulated for all LSC applications requiring a general purpose and economical cocktail.

Econo-Safe™ contains a precise blend of high efficiency scintillation fluors, and biodegradable emulsifiers and solvents. It offers excellent counting efficiency with a high resistance to chemical and color quenching.

#### Econo-Safe™ Advantages

- True Economy** • Budget price with performance equal to many higher priced cocktails.
- High Flash Point** • Flash point exceeds 300°F.
- Safety** • All components utilized are classified as non-hazardous.
- Easy Disposal** • Dispose of as ordinary liquid waste. Also suitable for sanitary sewer disposal in accordance to NRC Regulation 10CFR20.306.

#### Counts a Wide Range of Samples:

- Water and aqueous salt solutions
- Biological Materials
- Organic liquids and solutions
- Filters

#### Addition of Sample

Performance will depend on many factors, including type of counter, temperature, and type of sample. The best way to prepare the solution for counting is to dispense the required volume of Econo-Safe™ into the counting vial, add sample, cap vial and shake. Addition of some samples to Econo-Safe™ can cause a change in temperature and other effects within the mixture. It may be necessary for the mixture to stand after sample addition and before counting. Trials will indicate if this is necessary and the time required.

#### Water and Aqueous Solutions

Econo-Safe™ has a high capacity for aqueous samples and will remain clear without a two-phase unstable region. Aqueous solutions of salts, sugars, etc. will behave the same as water provided the solutions are sufficiently diluted; 10% solution of some salts will be accommodated whereas other salts will precipitate with concentrations as low as 2%. If precipitation occurs, the sample should be diluted with water before adding Econo-Safe™.

### **Biological Materials**

Many biological materials such as urine, serum and plasma may be added directly into Econo-Safe™ without any preparation. These systems will behave as described under “Water and Aqueous Solutions”. Not more than 1ml of colored sample should be added to 10ml of Econo-Safe™ since considerable color quenching of the scintillation process will occur.

Some materials, such as blood, will require treatment with a solubilizing agent (e.g.: TS-2™, tissue and gel solubilizer) before counting with Econo-Safe™. In such cases the sample should be acidified with 0.2ml diluted glacial acetic acid before adding sample to Econo-Safe™. Excessive background counts may occur if this is not done.

### **Safety Data**

The flash point of this product is >300°F T.C.C. and therefore is classified as a combustible liquid. There are no restrictions for transportation or storage. A low vapor pressure of <0.5mm Hg reduces exposure to personnel and the environment. Refer to Safety Data Sheet for this product for proper handling procedures or precautions. It is recommended that all good laboratory safety and working practices be observed when using Econo-Safe™.