

## RADIONUCLIDE SAFETY DATA SHEET

NUCLIDE: Ga-67

FORMS: ALL SOLUBLE

### PHYSICAL CHARACTERISTICS:

HALF-LIFE: 3.261 days

TYPE DECAY: e<sup>-</sup> capture

gamma: 0.091 MeV (2.9 %)  
0.093 MeV (35.7 %)  
0.185 MeV (19.7 %)  
0.209 MeV (2.2 %)  
0.300 MeV (16.0 %)  
0.394 MeV (4.5 %)  
0.888 MeV (0.1 %)

Hazard category: C- level (low hazard) : 100 uCi to 10 mCi

B - level (Moderate hazard) : > 10 mCi to 1 Ci

A - level (High hazard) : > 1 Ci

### EXTERNAL RADIATION HAZARDS AND SHIELDING:

The exposure rate at 1 cm from 1 mCi is 803 mR/hr. The exposure rate varies directly with activity and inversely as the square of the distance. The tenth value of lead for this energy of radiation is 0.5 cm.

### HAZARDS IF INTERNALLY DEPOSITED:

The annual limit on oral intake (ALI) of Ga67 corresponding to a whole-body guideline gamma exposure rate of 500 mrem/year is 800 uCi.

### DOSIMETRY AND BIOASSAY REQUIREMENTS:

Film badges and dosimeter rings are required if 5 millicuries are handled at any one time or 1 millicurie levels are handled on a frequent (daily) basis.

Urine assays may be required after spills or contamination incidents.

### SPECIAL PROBLEMS AND PRECAUTIONS:

1. When 5 millicuries are used, work behind lead shielding. Survey frequently. Handle stock solution vials in shields or use tongs or forceps. Change gloves often.
2. Segregate wastes with those with half-lives less than 4 days.
3. Dilute aqueous wastes may be disposed to the sewer system in amounts of up to 100 uCi daily per lab.