

PY



PY MSDS

**MATERIAL SAFETY DATA SHEET****SECTION 1. CHEMICAL IDENTIFICATION***Name: PYtest™ capsule***SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS***Synonyms: <sup>14</sup>C-urea, urea***SECTION 3. HAZARDS IDENTIFICATION***Radioactive material**Harmful**Possible carcinogen**Wear protective clothing when in use.**In case of contact with eyes, rinse immediately and rinse with plenty of water.**Use in accordance to local, state and federal regulations for radioactive materials.***SECTION 4. FIRST AID MEASURES***In case of contact with eyes, immediately flush area with copious amounts of water.**In case of contact, immediately wash skin with soap and water.**Wash contaminated clothing before reuse.**Survey affected area in accordance with local, federal, and state regulations after cleaning.***SECTION 5: FIRE FIGHTING MEASURES***Extinguishing media: Water Spray, carbon dioxide, dry chemical powder or appropriate foam.**Special firefighting procedures**Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.**Survey potentially contaminated areas for radioactivity in accordance with local, state and federal regulations.**Unusual fire and explosions hazards**Emits toxic fumes under fire conditions.***SECTION 6. ACCIDENTAL RELEASE MEASURES***Clean area and released materials in accordance with local radiation safety regulations.**These are typically summarized by:*

- Mark off contaminated area
- Survey extent of contaminated area
- Contact radiation safety officer or supervisor
- Clean up spill
- Survey area and clean again if necessary until contamination levels are below local regulations

**SECTION 7. HANDLING AND STORAGE***Store at room temperature (15-30 °C, 59-86 °F).**Store in accordance with local, state and federal regulations regarding storage and handling of radioactive material.***SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION***Wear rubber gloves.*

Do not get on eyes, skin, clothing.  
Wash thoroughly after handling.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance and odor:** Clear hard gelatin capsule

**Physical properties ( $^{14}\text{C}$ -urea):**

**Melting Point:** 133 to 135°C

**Specific Gravity:** 1.335

**Molecular Weight:** 62.06

**Activity per capsule:** 1  $\mu\text{Ci}$  (37,000 Rn)  $^{14}\text{C}$  (Carbon 14, C 14)

**Characteristics of  $^{14}\text{C}$ :**

**Emission:** Beta-particle

**Energy:** 165 keV max

**Half-life:** 5730 years

### SECTION 10. STABILITY AND REACTIVITY

**Incompatibilities:** Strong Oxidizing Agents

**Hazardous combustion or decomposition products:** Carbon Monoxide, Carbon Dioxide, Nitrogen Oxides

### SECTION 11. TOXICOLOGY INFORMATION

This product contains a chemical known to the state of California to cause cancer.  
Maximum Effective Dose Equivalent (EDE) for ingestion: 0.3 mrem/ $\mu\text{Ci}$

### SECTION 12. ECOLOGICAL INFORMATION

No ecological data available.

### SECTION 13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, state and Federal regulations regarding the disposal of radioactive materials.

### SECTION 14. TRANSPORT INFORMATION

Transport in accordance with local, state and Federal regulations regarding the transportation of radioactive materials.

### SECTION 15. REGULATORY INFORMATION

The use, handling and hazards of radioactive material are regulated by the U.S. Nuclear Regulatory Commission under Title 10, parts 19, 20, 30, 31, and 35 of the Code of Federal Regulations.

### SECTION 16. OTHER INFORMATION

The above information is believed to be correct but is not inclusive and should be used as a guide only. It is important that the product be used in accordance with local, state and federal regulations.