

# UMMC Standard Operating Procedure For Handling

Chemical: Streptozotocin (STZ)

**Prepared by the Department of Environmental Health and Safety**

## **Hazard:**

Streptozotocin (STZ) is an alkylating agent that is considered toxic to cells by causing damage to DNA. Primarily, it is used in biomedical research to produce an animal model of Type 1 Diabetes by destroying the insulin-producing beta cells of the pancreas.

This product is or contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP or EPA classification.

Laboratory experiments have shown mutagenic effects.

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.  
Skin: May be harmful if absorbed through skin. May cause skin irritation.  
Eyes: May cause eye irritation.  
Ingestion: May be harmful if swallowed.  
Target Organs: Pancreas, Liver, Kidney, Blood, Reproductive system.

## **Unused Material and Instrument Disposal:**

Surplus STZ will be disposed by EHS as a hazardous waste. Used syringes will be placed in a sharps container and disposed as *Regulated Medical Waste*.

## **PPE for handling or change out of treated animals:**

N95 mask  
Eye protection  
Appropriate lab attire (pants, closed-toe shoes)  
Chemical resistant gloves

## **Waste Disposal:**

**The first cage change after each drug administration is to be done by trained technician no sooner than 3 days after the administration.** If the schedule of cage changes of every other day is maintained, a minimum of two (2) cage changes will be captured for disposal. The dirty bedding will be placed in a biohazard container for disposal. Animal carcasses will be incinerated. After this second cage change there is no need for further special precautions to be taken regarding the animals or the cages as long as the animals have not received any more STZ.

**Cage Disinfection:** Cages and accessories are transported to the cage washing facility for disinfecting. Regular cage wash sanitization meets requirements for cleanup.

Contact the Safety Officer – Chemicals at 601-984-1981 if additional information is needed.