

## CHEMICAL SAFETY

### Standard Operating Procedure (SOP)

<i>Title:</i>	<b>Hydroxyurea</b>	<i>WFUHS</i>
<i>Approved by:</i>	<i>Effective Date: November 26, 2007</i>	<i>SOP#</i>
<i>David A. Brown, Director, EH&amp;S</i>		

#### **PURPOSE**

The purpose is to use hydroxyurea, a DNA replication inhibitor that causes ribonucleotide depletion and results in DNA double strand breaks near replication forks in a safe manner.

#### **SCOPE**

The scope of hydroxyurea use is in a laboratory environment.

#### **HEALTH, SAFETY, ENVIRONMENTAL INFORMATION**

##### **Physical Hazards**

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Reactive with organic materials.

Incompatibilities with Other Materials: Organic materials

Hazardous Decomposition Products: Carbon oxides (CO, CO<sub>2</sub>), nitrogen oxides (NO, NO<sub>2</sub>).

Hazardous Polymerization: Has not been reported.

##### **Health Hazards**

Eye: May cause eye irritation.

Skin: May cause skin irritation. Harmful if absorbed through the skin.

Ingestion: Irritation and acute oral toxicity.

Inhalation: Harmful if inhaled. May cause respiratory tract irritation.

Chronic: May alter genetic material. May cause reproductive disorders. May cause congenital malformation in the fetus. Target organ(s): bone marrow. The chemical, physical, and toxicological properties have not been thoroughly investigated.

##### **Personal Protective Equipment**

- **Eye Protection**

- Safety glasses, goggles or face shields shall be worn during operations in which hydroxyurea might contact the eyes.
- Ordinary (street) prescription glasses do not provide adequate protection. Adequate safety glasses must meet the requirements of the Practice for Occupational Education Eye and Face Protection (ANSI Z87.1-1989) and must be equipped with side shields.
- Contact lenses shall not be worn if the potential exist for hydroxyurea exposure.

- **Hand Protection**

- Nitrile gloves impervious to hydroxyurea shall always be worn – Safeskin Purple Nitrile Xtra Exam Gloves, 12 inches long, catalog # 19-149-864 (Fisher Scientific).

- **Lab Coats, etc.**

- Lab coat, closed-toe shoes and long-sleeved clothing shall be worn when handling hydroxyurea. Protective clothing shall be worn to prevent any possibility of skin contact with hydroxyurea.
- **Safety Shower / Eye Wash**
  - Where the eyes or body of any person may be exposed to hydroxyurea, suitable facilities for quick drench or flushing of the eyes and body shall be provided within the work area for immediate emergency use.
  - Bottle type eyewash stations are not acceptable.
- **Personal Hygiene**
  - Wash hands after handling compounds and before eating, smoking, using lavatory, and at the end of the day.

### **Designated Area for Use and Containment Devices**

All hydroxyurea work shall be done in the laboratory fume hood.

The fume hood's sash must be in the position where a face velocity of 100 feet per minute is achieved.

### **Waste Disposal**

Full containers of hydroxyurea must be disposed of according to WFUHS EH&S Hazardous Waste Program.

### **Decontamination of Equipment and Area**

Contact WFUHS EH&S at 716-1201 for decontamination information.

### **Spill and Accident Procedures**

In the event of a liquid spill greater than 300cc, immediately vacate and secure the area. Contact WFUBMC Security at 716-9111.