# STANDARD OPERATING PROCEDURES FOR HAZARDOUS AND PARTICULARLY HAZARDOUS CHEMICALS

For

##  Urea

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| 1. PROCEDURE /  PROCESS | Urea is used in **Building, Room.** **Insert procedure here:** |
| 2. CHEMICAL NAME(S) and associated  PHYSICAL and  HEALTH HAZARDS | **Urea – CAS# 57-13-6;** also known as Carbamide; Carbonyldiamide.* **Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.**
* **This substance is mutagenic for mammalian somatic cells.**
* **This substance may be toxic to blood, cardiovascular system. Repeated or prolonged exposure to the substance can produce target organs damage.**
* **May be combustible at high temperature.**

Exposure Limits:* No occupational exposure limits have been established for urea. This does not mean that this substance is not harmful. Safe work practices should always be followed.

Toxicological Data:**ORAL** **(LD50):** 8,471 mg/kg [Rat]; 11,000 mg/kg [Mouse].\***Always refer to the Safety Data Sheet for the most detailed information**\* |
| 3. NAME OF TRAINER /  RESOURCE PERSON | **Principal Investigator Name, Building, Room, Phone Number****Secondary contact Name, Building, Room, Phone Number** |
| 1. LOCATION OF

 HEALTH & SAFETY  INFORMATION | The Safety Data Sheet (SDS) for urea is located in the Laboratory Safety Manual located in **Building, Room**.Labeling: In addition to the standard label that identifies contents, hazards, precautionary measures, and emergency contact information, containers should also be marked as toxic. |
| 5. PROTECTIVE  EQUIPMENT | Wear at the minimum chemical safety goggles, nitrile gloves and a fully-buttoned lab coat. (Note: Always check the manufacturer’s glove compatibility chart for proper glove selection.) Wash hands after removing gloves.  |
| 1. WASTE DISPOSAL

 PROCEDURES | **Waste Urea** should be collected in a sealable compatible waste container. The container should be stored away from incompatible materials such as strong oxidizing agents. A completed Dangerous Waste label should be attached when waste is first added to the container. When container is full or no longer being used, complete a Chemical Collection Request Form, and deliver to the Waste Accumulation Area Operator at **Building, Room, Phone Number.**   |
| 7. DESIGNATED AREA  INFORMATION | The urea is stored and dispensed in **Building, Room**. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits.The designated area(s) should be shown on the floor plan in Laboratories Chemical Hygiene Plan. |
| 8. DECONTAMINATION  PROCEDURES | **Upon Accidental Exposure**: In case of **eye contact**, flush eyes with water as a precaution. In case of **skin contact**, wash off with soap and plenty of water. In case of **inhalation**, move person into fresh air. In case of **ingestion**, rinse mouth with water. Never give anything by mouth to an unconscious person.**Upon Accidental Release**: If Urea is released and you have been appropriately trained to clean it up, you may do so. Trained personnel should wear at the minimum nitrile rubber gloves, safety glasses or chemical safety goggles, and a fully-buttoned lab coat. (Note: Always check the manufacturer’s glove compatibility chart for proper glove selection.) Additional PPE such as respirators are not necessary but may be desired for nuisance levels of dust. (Note: You must be medically cleared, fit tested and enrolled in WSU’s Respiratory Protection Program to wear a respirator). If you desire to wear a respirator and are not trained, fit tested and medically cleared to wear one, ask another spill trained employee to clean up the spill or call EH&S.Use appropriate tools and place material in an appropriate waste disposal container (resealable bag, etc.) and dispose of as hazardous waste (see above WASTE DISPOSAL PROCEDURES). Avoid dust formation.As with all accidents, report any exposure as soon as possible to your Principal Investigator or Supervisor. Additional health and safety information on urea can be obtained by referring to the SDS or by calling the EH&S Office (335-3041). |
| 1. SPECIAL STORAGE

 AND HANDLING  PROCEDURES | Store in a tightly closed container in a cool, dry and well-ventilated area away from direct sunlight, heat, sparks, flame or any other source of ignition. Avoid formation of dust or aerosols.Keep away from incompatibles such as strong oxidizing agents. |

**Certification of Hazard Assessment**

Is this document a certification of Hazard Assessment for the processes identified within? ***Yes No***

If yes, provide the name of the person certifying the Hazard Assessment and the date it was performed:

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Name Date

The location of the Hazard Assessment is indicated in the document preceding this form.

**Certificate of Employee Training**

Name of person providing training for employees working with this process:

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The following employees have been trained in when, where and how to use selected PPE, the maintenance, limitations and disposal of the PPE selected, and have demonstrated the correct use of the PPE selected on the reverse of this certification.

**Name**  **Date Trained**

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