# STANDARD OPERATING PROCEDURES FOR HAZARDOUS AND PARTICULARLY HAZARDOUS CHEMICALS

For

## Ammonium Persulfate

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| 1. PROCEDURE /  PROCESS | Ammonium Persulfate is used in **Building, Room.**  **Insert procedure here:** |
| 2. CHEMICAL NAME(S)  and associated  PHYSICAL and  HEALTH  HAZARDS | **Ammonium Persulfate- CAS# 7727-54-0**; also known as ammonium peroxydisulfuric acid, diammonium persulfate, AP, APS, and PER.   * **Ammonium persulfate is a strong oxidizer and potentially explosive. It enhances the combustion of other substances.** * **Ammonium persulfate is a skin and respiratory sensitizer.** * **Contact can irritate the skin. May cause a skin allergy or skin burns.** * **Contact can cause serious eye irritation.** * **Ammonium persulfate can affect you when inhaled, irritating the mucous membranes, nose and throat. May cause lung edema. Symptoms may include sore throat, shortness of breath, inflammation of nasal passages, coughing, and wheezing. Any exposure may cause an allergic reaction. Asthma-like symptoms and life-threatening shock may result.**   Signal Word: **DANGER**  Exposure Limits:  **ACGIH:** TWA: 0.1 mg/m3 (as Persulfate)  Toxicological Data:  **ORAL (LD50):** 689 mg/kg [Rat]  **DERMAL (LD50):** >2,000 mg/kg [Rat]  \***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 ammonium persulfate is located in the Laboratory Safety Manual in **Building, Room**.  Labeling: Containers shall either have original warning label affixed or a label identifying the contents and hazards. |
| 5. PROTECTIVE  EQUIPMENT | Wear appropriate gloves such as nitrile rubber, chemical splash goggles, and a fully buttoned lab coat. Wash hands after removing gloves. Work within a properly functioning certified laboratory chemical fume hood.  Safety shielding shall be used for any operation having the potential for explosion, including the following situations:   * When a reaction is attempted for the first time (small quantities of reactants should be used to minimize hazards); * When a familiar reaction is carried out on a larger than usual scale (i.e., 5-10 times more material); or * When operations are carried out under non-ambient conditions |
| 1. WASTE DISPOSAL   PROCEDURES | **Waste Ammonium Persulfate** must be managed as Dangerous Waste at concentrations of 1% of greater. It should be collected in a compatible container with a vented lid designed for storage of acids and bases. The container should be stored away from incompatible materials and 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.**  If solution is less than 1% then the solution may be drained discharged. |
| 7. DESIGNATED AREA  INFORMATION | The ammonium persulfate is stored and dispensed in **Building, Room**.  **Always work within a properly functioning, certified laboratory chemical fume hood.**  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 copious amounts of water at an emergency eyewash station for at least 15 minutes. Consult a physician.  In case of **skin contact**, flush skin with copious amounts of water for 15 minutes. Consult a physician. For exposure over a large portion of the body, remove clothing and shoes and rinse thoroughly in an emergency shower for at least 15 minutes. Consult a physician.  In case of **inhalation**, move person to fresh air. Consult a physician  In case of **ingestion**, follow instructions on SDS. Consult a physician  **Upon Accidental Release**:  **Large Spill:** If a large amount of ammonium persulfate is released outside the fume hood, immediately evacuate, secure area and call 911 to contact EH&S.  **Small Spill:** If a small amount of ammonium persulfate is released (it can be cleaned up in 10 minutes) and you have been trained to clean it up you may do so. Wear appropriate PPE including nitrile rubber gloves, chemical splash goggles, and a fully-buttoned lab coat.  Additional PPE such as respirators may be necessary depending upon material and concentration. (Note: You must be medically cleared, fit tested and enrolled in WSU’s respiratory protection program to wear a respirator). If it is necessary to use a respirator and personnel are not cleared to wear a respirator and not trained to appropriately clean up the spill, the employee should immediately evacuate, secure area, and call 911 to contact EH&S.  Place material in an appropriate waste disposal container (resealable bag, etc.) and dispose of as hazardous waste (see above WASTE DISPOSAL PROCEDURES).  As with all accidents, report any exposure as soon as possible to your Principal Investigator or Supervisor. Additional health and safety information on ammonium persulfate can be obtained by referring to the SDS or by calling the EH&S Office (335-3041). |
| 1. SPECIAL STORAGE   AND HANDLING  PROCEDURES | Keep secured and store in a tightly closed container in a cool, dry, ventilated area away from sources of heat, sparks, flame, sunlight, or other sources of ignition. Hygroscopic. Avoid dust formation.  Keep away from incompatibles such as strong reducing agents, organic materials, combustibles and powdered metals. |

**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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