

# Performing Arts Safety Bulletin #2

## ARTIFICIALLY CREATED SMOKES, FOGS AND LIGHTING EFFECT



### 1. THE FOLLOWING SUBSTANCES SHOULD NOT BE USED:

- a. Known human carcinogens including any particulates of combustion, including tobacco smoke;
- b. Fumed and hydrolyzed chlorides;
- c. Ethylene glycol and Diethylene glycol;
- d. Mineral oils;
- e. Aliphatic and aromatic hydrocarbons including petroleum distillates;
- f. Hexachloroethane and Cyclohexylamine;

### 2. THE FOLLOWING SUBSTANCES MAY BE USED:

- a. Propylene glycol, Butylene glycol, Polyethylene glycol and Triethylene glycol. Other glycol products should not be used (see c above);
- b. Glycerin products [Caution: Glycerin and the listed glycol products should not be heated beyond the minimum temperature necessary to aerosolize the fluid. In no event should glycerin or glycol be heated above their decomposition temperature 290 C (554 F)];
- c. Cryogenic gases (eg., carbon dioxide, liquid nitrogen) may be used but care must be exercised to avoid depleting oxygen levels, especially enclosed areas. Use care also to avoid adverse effects of cooled air on exposed persons.

**NOTE:** Material Safety Data Sheets (MSDS) are to be consulted prior to acquisition and use of these products.

3. When creating smoke or fog effects, Producer(s) will utilize the minimum concentration necessary to achieve the desired effect.
4. When smoke or fog effects are created, the stage shall be periodically ventilated or exhausted, vertically and laterally, or all personnel and animals shall be given a break away from the stage at appropriate intervals.
5. When creating smoke or fog effects, Producer(s) shall make available on request respirators of the appropriate type (consult MSDS).
6. When smoke or fog effects are utilized, all non-essential personnel shall be excluded from the set. Whenever possible, personnel shall be vacated from all dressing rooms located on the stage.
7. When smoke or fog effects are scheduled to be created, prior notification as to use and type shall be given to all personnel. The person responsible for providing respirators shall be designated. Signs should be posted warning the public that fog will be used as part of the performance