

# Chemical Burns

## Oklahoma Occupational Safety and Health Surveillance Program



From 1999-2008, 463 persons were hospitalized in a burn center and 125 died as a result of a work-related burn injury. Forty-nine (8%) of these injuries (including one death) were the result of a chemical burn. Chemical burns can be severe and result in a high number of lost workdays. Three-fourths of the chemical burns involved less than 10% of the body surface area, but two people were burned over more than 20% of their body and 17% of patients were hospitalized for 10 days or longer.

- A 35-year-old worker was sprayed with nitric acid from a ruptured hose. He did make it to a safety shower, but did not remove his shirt immediately. He suffered burns to 10% of his body and was hospitalized five days.
- A 29-year-old male who was self-employed sustained burns to both his ankles from dry concrete that fell down his boots while he was working. The concrete remained in his boots for several hours. He was hospitalized five days.
- A 33-year-old male fell into an alkaline cleaner (140 degrees) for approximately 10 seconds when the grate he was standing on at work broke.
- A 33-year-old male working as a general laborer died after a piece of equipment

disconnected and sprayed pressurized liquid propane/butane for about 3-5 minutes. The propane/butane was extremely cold and sprayed him until his foot could be freed.

- A 60-year old female was stripping floors at work when her knees began to burn from the chemical. She was hospitalized 10 days.
- A 33-year-old male oilfield worker was using hydrofluoric acid to clean a rig. He was wearing soft, low-grade gloves and the acid leaked through, burning his fingers.
- A 59-year-old male was working as a team leader for a sanitation crew and had nearly 20 years of experience. He was using phosphoric acid to clean large dipping tanks, and when he added the acid to the water it caused a rapid boiling effect and spilled onto him. He was burned over 14% of his body and was hospitalized for 11 days.

### Contact Information:

Oklahoma State  
Department of  
Health

Injury Prevention  
Service

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Street

Oklahoma City,  
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405-271-3430 or  
1-800-522-0204

## SAFETY RECOMMENDATIONS

- **Provide appropriate training to employees working with potentially hazardous materials.**
- **Ensure that employees wear proper personal protective equipment (e.g., goggles, gloves, clothing).**
- **Remove contaminated clothing and promptly irrigate chemical burns that occur.**
- **Properly maintain equipment containing chemical substances.**
- **Keep floors clean, dry, and free of clutter.**
- **Properly store all chemical agents.**
- **Consult the *NIOSH Pocket Guide to Chemical Hazards* for specific exposures.**

The Oklahoma Occupational Safety and Health Surveillance Program collects statewide information on 19 occupational health conditions in order to develop and inform occupational injury and illness prevention programs. Oklahoma's occupational surveillance system is a research program of the National Institute for Occupational Safety and Health.

For detailed reports, please go to the Occupational Injuries section at:

<http://ips.health.ok.gov>