It’s Your Right to Know!
Helping Community Health Workers Promote Chemical Safety on the Job
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This webinar is adapted from the training curriculum Seguridad en las Lecherías: Immigrant Dairy Worker Health and Safety Training developed by the Upper Midwest Agricultural Safety and Health Center, Migrant Clinicians Network and the National Farm Medicine Center.
We will learn:

- How workers are exposed to chemicals
- The effects of chemicals on worker health
- Basic safety practices
- How community health workers can help workers improve chemical safety on the job
- How to train workers about chemical safety
Despite the plant being sealed, the forklifts remained in use.
Different Forms of Chemicals

Solid  Liquid  Gas

Physical Hazard
Health Hazard

Do you know someone who has been harmed or become ill from working with chemicals?
Each day thousands of workers are exposed to chemicals in the workplace.

Dose-time relationship
Routes of Exposure

Nose

Mouth

Skin and Eyes

Which of the following DOES NOT contribute to the way in which chemicals affect an individual?
Other factors that impact how chemicals harm you

- Type of chemical
- Gender
- Age
- Health condition
- Body size
- Duration of exposure
Ammonia

Routes of Exposure
How can workers protect themselves from ammonia exposure?

Personal protective equipment for ammonia (PPE)
Personal protective equipment for detergents
Other common exposures

Pesticide application in the field
Workers are required to receive chemical safety training in a language they understand.
Labels

Safety Data Sheet (SDS)

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Which of the following information is provided in the Safety Data Sheet?

**Section 1: Identification**
- **Product Name:** Ammonia, Anhydrous
- **Synonym:** Ammonia
- **CAS REGISTRY NO:** 7664-41-7
- **Supplier:** Tianne Industries, Inc.
  731 Devonshire Road, Third Floor
  Southamption, PA 18966
- **Website:** www.ammonium.com
- **Telephone (General):** 215-522-1238
- **Corporate Emergency Telephone Number:** 215-522-1100
- **Emergency Telephone Number:** Chemical: 1-800-242-5330
- **Fire Fighting Equipment:** Various (Industrial / Agricultural)

**Section 3: Hazards/Precautions**
- **Hazards:** Acute Toxicity, Corrosive, Gas Under Pressure, Flammable Gas, Acute Aquatic Toxicity
- **Exposure Route:** Acute Toxicity, Inhalation (Category 4)
- **Skin Corrosion / Irritation (Category):** (B)
- **Inhalation / Derma Irritation (Category):** (C)
- **Flammable Gases:** 0.816/60.8/20.9
- **Acute Aquatic Toxicity (Category):** (1)

**Precautions:**
- **Signal word:** Danger
- **Hazard statements:** Harmful if inhaled.
  Causes severe skin burns and serious eye damage.
  Flammable gas. Contains gas under pressure; may explode if heated.
  Very toxic to aquatic life.
- **Precautionary statements:**
  Avoid breathing vapors.
  Use only outdoors or in well-ventilated area.
  Wear protective gloves, protective clothing, eye protection, face protection.
  Keep away from heat, sparks, open flames and other ignition sources. No smoking.
Section 7. Health Hazards Information

**Chemical Name:** Ammonia, Anhydrous

**CAS Registry No.** 766-44-1

**SYNONYM** Ammonia

**CHEMICAL FAMILY:** Inorganic nitrogen compounds

**Exercise Precautions:**

- **Inhalation:** Immediately remove victim to fresh air. Keep warm and at rest. If symptoms persist, seek medical attention.
- **Skin Contact:** Wash with soap and water. If irritation persists, seek medical attention.
- **Eye Contact:** Wash with大量水 for 15 minutes. If eye irritation persists, seek medical attention.

**NOTE TO PHYSICIAN:** Respiratory injury may appear as a delayed phenomenon. Pulmonary edema may follow chemical inhalation. Supportive treatment with necessary ventilation assistance, including oxygen, may warrant consideration.

**Revision May 1, 2015**

**Anhydrous Ammonia**

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Section 8. Exposure Controls / Personal Protection

<table>
<thead>
<tr>
<th>EXPOSURE LIMITS FOR AMMONIA</th>
<th>(Vapors)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OSHA</strong></td>
<td>50 ppm, 35 mg/m³ PEL, 8 hour TWA</td>
</tr>
<tr>
<td><strong>NIOSH</strong></td>
<td>35 ppm, 27 mg/m³ STEL, 15 minutes</td>
</tr>
<tr>
<td><strong>ACGIH</strong></td>
<td>23 ppm, 18 mg/m³ TLV, 8 hour TWA</td>
</tr>
</tbody>
</table>

**PROTECTIVE EQUIPMENT:**

- **Eye Protection:** Chemical splash goggles should be worn when handling anhydrous ammonia. A face shield can be worn over chemical splash goggles as additional protection. Do not wear contact lenses when handling anhydrous ammonia. Refer to 29 CFR 1910.133 for OSHA eye protection requirements.
- **Skin Protection:** Ammonia impervious gloves and clothing (such as neoprene, butyl and Teflon) should be worn to prevent contact during normal operations, such as loading/unloading and transfers. Chemical boots can be worn as additional protection.
- **Respiratory Protection:** Respiratory protection approved by NIOSH for ammonia must be used when applicable safety and health exposure limits are exceeded. For escape or emergency, NIOSH approved respiratory protection should be used, such as a full-face gas mask and canisters/certificated approved for ammonia or SCBA. A positive pressure SCBA is required for entry into ammonia atmospheres at or above 300 ppm (IDLH). Refer to 29 CFR 1910.134 and ANSI Z88.2 for OSHA respiratory protection requirements. Also refer to 29 CFR 1910.111 for respiratory protection requirements at bolt installations.

**Ventilation:** Local exhaust should be sufficient to keep ammonia vapor below applicable exposure standards.

**For A Hazardous Material Release Response:** Level A and/or Level B ensemble including positive-pressure SCBA should be used. A positive pressure SCBA is required for entry into ammonia atmospheres at or above 300 ppm (IDLH). gases or vapors inflammables. Deben usar detectores de gas cuando exista la posibilidad de que se produzcan escapes de gases tóxicos. En los sitios proximos a cualquier posible exposición debe haber registran y estaciones de emergencia para lavarse las ojos. Use equipos de protección personal. Anteojos de protección, guantes, ropa de protección. Ventilación insuficiente: use protección para respirar. Cerradura de plástico para protección del rostro.
Emergencies

Call 911

• Address of the work place

• Condition of sick or injured worker

• Name of the chemical or explanation of the accident
The role of CHWs in promoting chemical safety at work.

How to train workers about chemical safety

• Trainer guide
• Activities
  ✓ Hand lotion
  ✓ Games with prizes for the winner
• Demonstrations
  ✓ Use Personal Protective Equipment
  ✓ How to put on and take off gloves
  ✓ How to wash hands
  ✓ Bring copies of labels and Safety Data Sheets
You can do it!

Learn:
- Policies and procedures
- Risks
- How to protect yourself
- What to do in an emergency
- Attend trainings

Use:
- Personal Protective Equipment
- Appropriate clothes and shoes

Practice:
- Stop, look, and think safely before doing
- Report any dangers or injuries

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Post test polling questions

Which of the following can contribute to the way in which chemicals affect an individual? Select all that apply.

a) Body size  
b) Body temperature  
c) Age  
d) Duration of exposure

Workers are required to receive chemical safety training in a language they understand.

• True  
• False

Which of the following information is provided in the Safety Data Sheets?

a) First Aid measures  
b) Handling and storage  
c) Symptoms of exposure  
d) Instructions for disposal  
e) All of the above

Resources

• Safety and Health on the Farm- It’s your right and It’s the Law

• OSHA webpage- Hazard Communication Standard

• Safety in Words
Thank you for your participation

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¡ES SU DERECHO SABER! AYUDANDO A LOS PROMOTORES DE SALUD A PROMOVER LA SEGURIDAD QUÍMICA EN EL TRABAJO

21 DE JUNIO DE 2017 @ 1 PM (ET)
References


This presentation is adapted from Lesson 5: Working Safely with Chemicals, an educational module from Seguridad en las Lecherías: Immigrant Dairy Worker Health and Safety Training Curriculum.

http://www.migrantclinician.org/seguridad

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