

## PDA Presentation

### Safety & Health requirements for polyurea application.

- I. Introduction.
- II. Health Hazards of polyurea applications.
  1. isocyanate exposure. (inhalation and skin contact).
  2. corrosive exposure to chemicals.
  3. hearing loss.
- III. Safety and Health requirements.
  1. Respirators.
  2. Tyvek suits.
  3. Hearing protection.
  4. Confined space entry requirements.
- IV. Drum disposal and clean up.
- V. Damage control. First Aid.
  1. Spills.
  2. Fire.
  3. Personnel contamination (isocyanate exposure or chemical contact).
- VI. Regulatory Information.
  1. OSHA.
  2. EPA.

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### INTRODUCTION.

Working with polyurea involves risks. The chemicals themselves are hazardous, the equipment is high pressure and loud and the application sites require respect and continual situational awareness. The presentation today will focus on the hazards that are an integral part of this exciting new technology.

### HEALTH HAZARDS.

Health hazards of chemical products are detailed in the Material Safety Data Sheets. The MSDS's.

Slide #1. An MSDS.

#### 1. Sections of an MSDS.

- I. Identification of manufacturer and product info.
- II. Ingredients and CAS #'s.
- III. Physical Data.
- IV. Fire & Explosion Hazard Data.
- V. Reactivity information.

- Chemtrec number 1-800 424-9300

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Slide #2. Exposure Hazards of chemicals.

1. Exposure hazards exist for the “A” side or isocyanate Component AND the “B” side or amine blends.
2. Inhalation and skin contact.

Slide #3. Isocyanate or “A” side exposure.

1. Respiratory exposure or skin absorption.
2. Guidelines: PEL 0.02 ppm Ceiling OSHA guideline.  
TLV 0.005 ppm 8 hour TWA ACGIH.
3. “Rule of Thumb”. Isocyanate has a “sweet” odor.

If you smell it. Odor is 10 – 20 times over OSHA rule!  
Odor is 40 – 90 times over ACGIH!

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Slide #4. Physical effects of “A” side over-exposure.

1. Chest “tightness”.
2. Discomfort on deep inspiration.
3. Wheezing and coughing.

Slide #5. “B” side exposure.

1. Amines are corrosive to skin and eyes.

Slide #6. Positive pressure supplied air respirators.

1. Provides respiratory protection.
2. Provides eye protection.