

Flores - Workshop Session III
Chemical Safety for the Sanitation Worker

**Chemical Safety for
The Sanitation
Worker**

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Sanitation Workshop

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Steps in Cleaning

- Prepare to Clean
- Pre-rinse
- Wash- Apply cleaning solution
- Agitate cleaning solution
- Rinse
- Inspect
- Sanitize



Chemical Safety

- When chemicals are properly used they:
 - Make equipment cleaning possible
 - Maintain necessary sanitation
 - Help in the production of quality products



Chemical Safety

- When chemicals are used improperly they:
 - Create an unsafe working environment
 - Contribute to poor quality production
 - Decrease equipment life



Chemical Labels

- Treat Chemicals With Respect!!
- Always read the label for:
 - Name of the chemical
 - Use Directions
 - Hazard Classification
 - First Aid procedures
- If you do not know or understand the proper use of a chemical, ASK!



Handling Procedures

- If a chemical is not properly labeled:
 - Do Not Use!
 - Notify your shift supervisor
 - Call DeLaval
- Always have an awareness of safety
- Store chemicals properly labeled, with lid on
- Add chemicals to water – Not water to chemicals
- Avoid spattering
- Wash hands after chemical use
- Never point a high-pressure hose at anyone



Handling Procedures

- Read and the label instructions
- Know the chemicals that you work with
- Never mix chemicals
- Use products only as recommended on the label
- Distribute chemicals in a safe manner
- Store chemicals in a cool, dry, secure area
- Keep acid and chlorinated products in separate areas





Handling Procedures


- Keep chemicals out of reach of children
- Don't use chemicals in excess concentrations
- Use proper dispensing equipment
- Wash hands thoroughly after handling
- Always wear the proper PPE whenever handling chemicals
- Familiarity Can Lead to Neglect!



Three Important Things to NEVER Do!

 **NEVER** add hot water to powdered caustic **or** powdered caustic to hot water - a violent reaction will result!!

 **NEVER** mix concentrated chemicals together

 **NEVER** mix acids with chlorine containing compounds.



DeLaval's Color Coding System

- Familiarize yourself with DeLaval's color-coded safety program.
- Acid Cleaners & Sanitizers
- Chlorine-Containing Products
- Highly Alkaline
- Near Neutral



DeLaval's Color Coding System

DeLaval provides:

Color Coded Technical Data Sheets

Color Coded Product Labels

Color Coded Mini Product Tags

Color Coded Safety Posters



DeLaval's Safety Program



READ THE LABEL!!

Understand the Health Hazards Ratings:

No. 4 - Extreme Hazard

No. 3 - High Hazard

No. 2 - Moderate Hazard

No. 1 - Slight Hazard

No. 0 - No Hazard



Four Types of Chemical Hazards

- **Toxics**
- **Corrosive / Irritants**
- **Flammables**
- **Reactives / Oxidizers**



Emergency Procedures

- Know where emergency numbers are located on the product label:
 - Chemtrec 1-800-424-9300
 - Chem-Tel 1-800-255-3924
- Emergency numbers should be posted
- Establish safety procedures for:
 - Chemical injury
 - Chemical Leak or Spill
 - Fire
 - Evacuation
- Know location and use of eyewash stations and showers



FIRST AID

- Eye Injury - Rinse from the bridge of the nose outward. Rinse for a minimum of 15 minutes with cool water
- Skin Contact - Rinse for a minimum of 15 minutes with cool water
- Inhalation - Evacuate the area
- Ingestion - Do not induce vomiting
- SEEK MEDICAL ATTENTION
- TAKE MSDS SHEET WITH YOU!



Material Safety Data Sheet - M S D S

- Consult your MSDS before you use the product for the first time.
- MSDS information should be located in an area with 24 hour access.



MSDS Information

- Identification - brief description of the product.
- Composition Information - hazard data on any potentially harmful components of the product.
- Physical Data - pH, odor, vapor pressure, specific gravity, boiling point, etc.



MSDS Information

- Health Hazard Data - Information on the toxicity and adverse health effects.
- Emergency First Aid - actions to be taken for eye, skin or ingestion.



Example MSDS

SECTION VI - HEALTH HAZARD DATA

ACUTE HEALTH EFFECTS
EYE CONTACT: Irritant to the eyes, may cause severe damage.

INHALATION: Irritating to the nose, throat, and respiratory tract.

INGESTION: Harmful if swallowed. Resulfuring product can cause severe burns to lining of throat and stomach.

SKIN CONTACT: Irritant to sensitive. Causes severe skin burns.

IRRITATION AND SYMPTOMS OF EXPOSURE:
 Irritation to skin and eye tissue.

AGGRAVATED MEDICAL CONDITIONS:
 None.

SUPPLEMENTAL HEALTH INFORMATION:
 N/A.

EMERGENCY FIRST AID PROCEDURES
EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

INHALATION: Remove victim to fresh air. Get medical attention.

INGESTION: Do not induce vomiting. Give victim large amount of milk or water. Get immediate medical attention. Never give anything by mouth to an unconscious person.

SKIN CONTACT: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothes and shoes. Get immediate medical attention. Wash contaminated clothes before reuse.

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MSDS Information

Spill or Leak procedures - detailing steps in the event of a spill or leak.

Special Information section to give data like, storage, exposure and ways that chemicals enter your body.

PPE Information



PERSONAL PROTECTIVE EQUIPMENT

PPE

Your personal protective equipment is for your Safety.



Inspect PPE for defects and holes. Replace if needed.

Equipment not used or not kept in good condition can only hurt you.



PERSONAL PROTECTIVE EQUIPMENT

PPE

- The most dangerous materials in cleaning compounds are those containing caustic and the acid cleaners. They should not be allowed to contact bare skin or clothing.
- Face shield/goggles, aprons and rubber gloves should be worn when mixing caustic solutions as a safety precaution.



PERSONAL PROTECTIVE EQUIPMENT

Always use Personal Protective Equipment

- Eye/ Face Protection
- Hand Protection
- Body Protection
- Foot Protection
- Breathing Equipment

PPE

Read the Labels!



Things to Remember

- If chemicals get on your clothes, they must be washed before wearing again.
- **Always** read the label before using any chemical product.
- **Never** mix chemicals with anything but water.
- **Never** mix more than one chemical with water.
- **Never** mix two chemicals (in water) together without permission.
- Report any unsafe conditions



Chemical Safety Training is Critical

- DeLaval's Chemical Safety Program has been designed to help you.
- Have a healthy respect for all chemicals used in the work place.
- For further information on a chemical, read the label, MSDS and the tech sheet for the chemical being used.



Thank You

- Questions/Comments
- Preguntas y Comentarios