

Blue Tuna's Safety Training Presentations

Working Safely with Corrosives 29 CFR 1910.1200

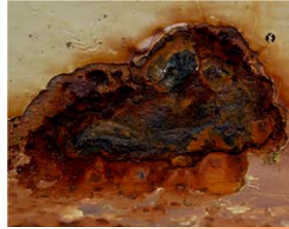


Goals

- Corrosives, hazards, first aid
- Engineering controls, PPE, safe work practices
- Quiz

What Is a Corrosive?

- Can be solid, liquid, or gas
- Irreparably harm living tissue
- Damage materials on contact



Types of Corrosives

- Acids
- Bases, caustics, or alkalis
- Dehydrating agents
- Halogens and halogen salts



Corrosive Hazards

- Attack skin, eyes, and tissue
- Attack other materials
- Contribute to fire hazards
- Generate hydrogen gas
- Create heat
- Toxic when breathed



Warning Labels and Signs

- Warning signs
- DOT label
- HMIS® labels
- NFPA labels
- Read the labels



MSDS

- Identity of corrosive
- Exposure levels
- Reactivity, fire, and explosion
- Health hazards and symptoms of exposure
- PPE and first aid
- Storage and spills



First Aid

- Eyes—flush with water
- Skin—wash with water and remove clothing
- Inhalation—move to fresh air
- Swallowing—get medical assistance



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Engineering Controls

- Use safer forms of corrosives
- Reduce operations that disperse corrosives
- Minimize potential leak points
- Transfer through hoses or pipes

Engineering Controls

- Enclose corrosive operations
- Use ventilation and exhaust systems
- Select compatible materials
- Minimize operating pressures



Ventilation

- Removes corrosive vapors and mists
- Determined by assessment
- Checked with air monitoring
- System of hoods and ducts
- Single exhaust fan



PPE

- Safety glasses or goggles
- Face shield
- Gloves
- Protective clothing
- Respiratory protection



PPE

- Selection—gloves
- Storage
- Inspection
- Disposal



Storage

- Store corrosives away from production areas
- Some corrosives are incompatible
- Storage areas should be corrosion resistant
- Have spill and leak containment
- Areas must be well ventilated



Storage

- Mark with warning signs
- Inspect storage areas regularly
- Store in dry, cool area
- Use corrosion-resistant cabinets
- Protect glass containers from breakage



Emergency Equipment

- First-aid kit
- Spill-response supplies
- Safety showers
- Eyewash stations
- Fire extinguishers



Handling Corrosives

- Drum hand trucks
- Carboy caddies
- Safety bottles
- Self-closing portable containers
- Do not add water to acid



Dispensing Corrosives

- Reduce vapors, mists, dusts
- Use caution when pouring into small containers
- Use pumps
- Never pressurize a container
- Use scoops for solids
- Close containers when done



Good Housekeeping

- Clean up drips or spills right away
- Dispose of unlabeled, contaminated chemicals
- Remove empty containers
- Ensure that containers are properly marked

Personal Hygiene

- Wash hands before eating, smoking
- Remove contaminated clothing
- Do not eat or drink around corrosives
- Do not touch yourself with contaminated gloves
- Thoroughly wash up at end of day



Emergency Procedures

- Leave the area
- Flush eyes/skin with water
- Notify others of the spill
- Limit access to spill area
- Only trained personnel can clean up large spills



Waste Management

- Ensure that containers are appropriate for the waste
- Do not mix corrosive waste with other wastes
- Empty corrosive containers
- Do not pour down drains or sinks

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Summary

- Learn hazards of your corrosives
- Follow safe storage practices
- Use engineering controls and PPE
- Safely handle and dispense corrosives
- Know first-aid and emergency procedures