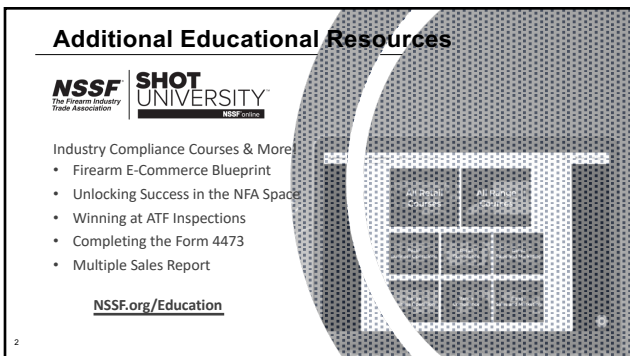




1



2



3



4

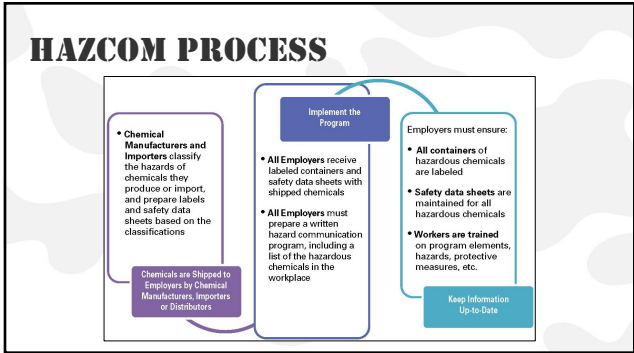


5

LESSON OBJECTIVES

- * Discuss the HAZCOM process
- * Highlight components of a HAZCOM program
- * Describe HAZCOM labeling requirements
- * Recognize the importance of Safety Data Sheets
- * Detail employee information and training requirements

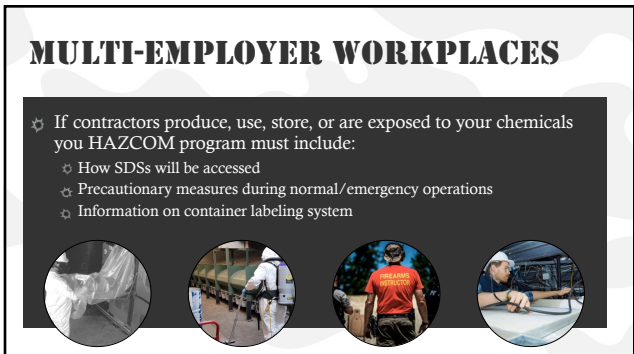
6



7



8



9

CHEMICAL INVENTORY LIST

- ✧ Use product identifier
 - ✧ Product name, common name or chemical name
 - ✧ Same as name used on SDS and label
- ✧ Must have an SDS for each chemical in inventory
- ✧ Covers all chemicals in all forms
- ✧ Include chemicals in containers, pipes, and those generated by work operations
 - ✧ Lead
 - ✧ Carpentry work


10

CORROSIVE CHEMICALS

✧ 29 CFR 1910.151(c) states:


Where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use.

- ✧ Gunsmithing and janitorial chemicals
- ✧ Plumbed or self-contained
- ✧ Meets ANSI Z358.1



11




CHEMICAL LABELING



- ✧ All containers of hazardous materials must be labeled
- ✧ Immediate warning
- ✧ Snapshot of hazards and protective information




12

PICTOGRAMS

<p>Gas Cylinder</p>  <ul style="list-style-type: none"> • Gases Under Pressure 	<p>Corrosion</p>  <ul style="list-style-type: none"> • Skin Corrosion/ Burns • Eye Damage • Corrosive to Metals 	<p>Exploding Bomb</p>  <ul style="list-style-type: none"> • Explosives • Self-Reactives • Organic Peroxides
---	--	--

16

PICTOGRAMS

<p>Flame Over Circle</p>  <ul style="list-style-type: none"> • Oxidizers 	<p>Environment (Non-Mandatory)</p>  <ul style="list-style-type: none"> • Aquatic Toxicity 	<p>Skull and Crossbones</p>  <ul style="list-style-type: none"> • Acute Toxicity (fatal or toxic)
---	--	--

17

HAZCOM WORKPLACE LABELS

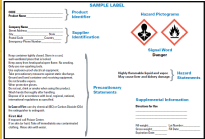

- Required for secondary containers
- What are secondary containers?
 - Squeeze bottles
 - Spray bottles
 - Buckets/cups
 - Ultrasonic cleaners



18

HAZCOM WORKPLACE LABELS


- Employers can create own labeling system
- Can choose same label required for shipped containers
 - Alternative labels as long as they provide general information about hazards
- Train employees to understand

19

SMALL CONTAINER LABELING




- If pull-out labels, fold-back labels, or tags containing the full label information required by OSHA are not feasible:
 - Containers ≤ 100 ml capacity
 - Product identifier, pictograms, signal word, manufacturer name & phone, and statement referring to outer package
 - Containers ≤ 3 ml capacity
 - No label required when label interferes with the normal use of the container
 - Container must bear, at a minimum, the product identifier
- Immediate outer package
 - Full label information;
 - Must not be removed or defaced; and
 - Statement that the small container(s) inside must be stored in the immediate outer package when not in use



20

OTHER TYPES OF LABELS

- HAZCOM shipping labels
- HAZCOM workplace labels
- NFPA 704 labels
- HMIS labels
- DOT shipping labels, placarding, and markings

21

NFPA 704 LABELS

- National Fire Protection Association
- Overall diamond shape made up of four smaller diamonds
- Each smaller diamond is a different color
- Numbers within smaller diamonds represent severity of hazard
- Provides information about hazards that occur during emergency response
- Outside buildings, on doors, on tanks, visible to emergency responders during spill or fire

22

NFPA 704 HAZARDS & SEVERITY RATINGS

Blue = Health Hazards

0 = normal material
1 = slight hazard
2 = moderate hazard
3 = extreme hazard
4 = deadly hazard

White = Other Special Hazards

W = reactivity to water
OX = oxidizer
SA = simple asphyxiant

Red = Flammability Hazards

0 = will not burn
1 = flashpoint above 200°F
2 = flashpoint between 100 – 200°F
3 = flashpoint below 100°F
4 = flashpoint less than 73°F

Yellow = Instability Hazards

0 = normally stable
1 = slight hazard
2 = moderate hazard
3 = extreme hazard
4 = deadly hazard

23

HMS LABELS

- Hazardous Materials Identification System
- Developed by American Coatings Association
- Intended for “In-plant” (workplace) labeling compliance
- Color-coded bars
- Numerical scale
 - 0 = minimal hazard
 - 1 = slight hazard
 - 2 = moderate hazard
 - 3 = serious hazard
 - 4 = severe hazard

HEALTH

FLAMMABILITY

REACTIVITY

PERSONAL PROTECTION

Prior

HEALTH

FLAMMABILITY

PHYSICAL HAZARD

PERSONAL PROTECTION

Current

24

HMIS HAZARD INDICATORS

(Product identifier)

HEALTH		
FLAMMABILITY		
PHYSICAL HAZARD		
PERSONAL PROTECTION		

Health ratings:
The second space signifies chronic health hazard with an asterisk (*)

Health ratings:
0 = no significant risk
1 = irritation/minor injury
2 = temporary/minor injury
3 = major injury
4 = life-threatening

Flammability ratings:
0 = will not burn
1 = flashpoint >200°F
2 = flashpoint ≥100°F, but <200°F
3 = flashpoint <73°F and boiling point >100°F, or flashpoint between 73°F and 100°F
4 = flashpoint <73°F and boiling point <100°F

25

HMIS HAZARD INDICATORS

(Product identifier)

HEALTH		
FLAMMABILITY		
PHYSICAL HAZARD		
PERSONAL PROTECTION		

Physical Hazard ratings:
0 = normally stable
1 = normally stable, but can become unstable
2 = unstable
3 = explosive
4 = readily explosive

PPE Index:
A = safety glasses
B = safety glasses + gloves
C = safety glasses + gloves + apron
D = face shield + gloves + apron
E = safety glasses + gloves + dust respirator
F = safety glasses + gloves + apron + dust respirator
G = safety glasses + gloves + vapor respirator
H = splash goggles + gloves + apron + vapor respirator
I = safety glasses + gloves + dust and vapor respirator
J = splash goggles + gloves + apron + dust and vapor respirator
K = air-line hood or mask + gloves + full suit + boots
X = ask supervisor or safety specialist

26

Comparison of NFPA 704 and HazCom 2012 Labels		Comparison of NFPA 704 and HazCom 2012 Labels	
	NFPA 704	NFPA 704	HazCom 2012
Purpose	Provides basic information for emergency personnel responding to a fire or spill and those caring for emergency response.	Infers workers about the hazards of chemicals in workplace under normal conditions of use and foreseeable emergencies.	Infers workers about the hazards of chemicals in workplace under normal conditions of use and foreseeable emergencies.
Number System: NFPA Rating and OSHA Classification System	0-4 0-least hazardous 4-greatest hazardous	1-4 1-least severe hazard 4-greatest severe hazard • The hazard category numbers are NOT required to be on labels but are required on SDS in Section 2. • Numbers are used to CLASSIFY hazards to determine what label information is required.	1-4 1-least severe hazard 4-greatest severe hazard • The hazard category numbers are NOT required to be on labels but are required on SDS in Section 2. • Numbers are used to CLASSIFY hazards to determine what label information is required.
Information Provided on Label	<ul style="list-style-type: none"> Health Blue Flammability Red Instability Yellow Special Hazards White OX Oxidizers W Water Reactives SA Single Acetylenes 	<ul style="list-style-type: none"> Product Identifier Signal Word Hazard Statement(s) Pictogram(s) Precautionary statement(s), and Name, address and phone number of responsible party. 	<ul style="list-style-type: none"> Product Identifier Signal Word Hazard Statement(s) Pictogram(s) Precautionary statement(s), and Name, address and phone number of responsible party.
Health Hazards on Label	Acute (short term) health hazards (H302) Acute hazards are more typical for emergency response applications. Chronic health effects are not covered by NFPA 704.	Acute (short term) and chronic (long term) health hazards. Both acute and chronic health effects are relevant for employees working with chemicals day after day. Health hazards include acute hazards such as eye irritants, simple asphyxiants and skin corrosives as well as chronic hazards such as carcinogens.	Acute (short term) and chronic (long term) health hazards. Both acute and chronic health effects are relevant for employees working with chemicals day after day. Health hazards include acute hazards such as eye irritants, simple asphyxiants and skin corrosives as well as chronic hazards such as carcinogens.
https://www.nfpa.org/Assets/files/AboutTheCodes/704/NFPA704_HC2012_QCard.pdf			

27

chem-pak, inc. **SAFETY DATA SHEET** Part No. P0306CT Aerosol
 905 Hoppe's No. 9 Bore Cleaner - 2oz. Print Date: 09/22/2016
 Revision Date: 09/22/2016 Version: 8.0 (EN) Page 1 of 11

SECTION 2 - HAZARDS IDENTIFICATION

2.1 Classification Of The Substance Or Mixture

- Flammable Aerosols, Category 1 : Extremely flammable aerosol
- Gases Under Pressure : Dissolved Gas : Contains gas under pressure; may explode if heated
- Skin Corrosion/Irritation, Category 2 : Causes skin irritation
- Serious Eye Damage/Eye Irritation, Category 2a : Causes serious eye irritation
- Sensitisation - Skin, Category 1 : May cause an allergic skin reaction
- Specific Target Organ Toxicity - Single Exposure, Category 3, Narcosis : May cause drowsiness or dizziness
- Hazardous To The Aquatic Environment - Acute Hazard, Category 3 : Harmful to aquatic life
- Hazardous To The Aquatic Environment - Chronic Hazard, Category 3 : Harmful to aquatic life with long lasting effects

28

LABELING ACTION PLAN

- Designate person(s) responsible for labeling compliance
- Ensure all workplace containers are labeled appropriately
- Avoid transferring chemicals into secondary containers
- Include labeling in training (shipping and workplace containers)
- Maintain procedures for reviewing/ updating workplace labeling

29

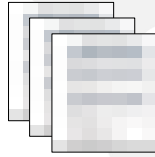
SAFETY DATA SHEET (SDS)

- Formerly known as MSDS (Material)
- 16-section format
- Available and accessible to workers
- Required for all hazardous chemicals used
- Must be in English
 - Additional languages allowed
- Do not use hazardous chemicals if there is no SDS available

30

SDS 16-SECTION FORMAT

- Section 1: Identification
- Section 2: Hazard(s) identification
- Section 3: Composition/information on ingredients
- Section 4: First-aid measures
- Section 5: Fire-fighting measures
- Section 6: Accidental release measures
- Section 7: Handling and storage
- Section 8: Exposure control/personal protection



31

SDS 16-SECTION FORMAT

- Section 9: Physical and chemical properties
 - Section 10: Stability and reactivity
 - Section 11: Toxicological information
 - Section 12: Ecological information
 - Section 13: Disposal considerations
 - Section 14: Transport information
 - Section 15: Regulatory information
 - Section 16: Other information
- } Not regulated by OSHA

32

Remington SAFETY DATA SHEET		Remington SAFETY DATA SHEET	
Revision 4 (03/2024)		Revision 4 (03/2024)	
1. PRODUCT AND COMPANY IDENTIFICATION Product Name: Remington® Rem® Oil, Liquid, Original Recommended Use: For use as a lubricant for firearms (not for medical purposes) Distribution: 200 mL (6.76 fl. oz.) Location: 12345 Main St., USA Supplier: Remington Arms Company, LLC Emergency Telephone: 1-800-438-8888 (24 hours, Washington, D.C. USA) Chemical Formula: (C12H22O)		1. PRODUCT AND COMPANY IDENTIFICATION Product Name: Remington® Rem® Oil, Liquid, Original Recommended Use: For use as a lubricant for firearms (not for medical purposes) Distribution: 200 mL (6.76 fl. oz.) Location: 12345 Main St., USA Supplier: Remington Arms Company, LLC Emergency Telephone: 1-800-438-8888 (24 hours, Washington, D.C. USA) Chemical Formula: (C12H22O)	
2. HAZARD IDENTIFICATION Classification: Not regulated Labeling: Signal Word: None Hazard Statements: None Precautionary Statements: None		2. HAZARD IDENTIFICATION Classification: Not regulated Labeling: Signal Word: None Hazard Statements: None Precautionary Statements: None	
3. COMPOSITION INFORMATION ON INGREDIENTS Name: Remington® Rem® Oil, Liquid, Original CAS Number: 123456789 Molecular Weight: 174.25 Purity: 100%		3. COMPOSITION INFORMATION ON INGREDIENTS Name: Remington® Rem® Oil, Liquid, Original CAS Number: 123456789 Molecular Weight: 174.25 Purity: 100%	
4. FIRST AID MEASURES Eye Contact: Flush eyes with large amounts of water. If irritation persists, get medical attention. Do not rub the eyes. Skin Contact: Wash affected area with soap and water. If irritation persists, get medical attention. Do not use solvents. Inhalation: If high concentration, remove person to fresh air. If symptoms persist, get medical attention. Ingestion: Flush mouth with water. Do not induce vomiting. If medical attention is needed, get medical attention.		4. FIRST AID MEASURES Eye Contact: Flush eyes with large amounts of water. If irritation persists, get medical attention. Do not rub the eyes. Skin Contact: Wash affected area with soap and water. If irritation persists, get medical attention. Do not use solvents. Inhalation: If high concentration, remove person to fresh air. If symptoms persist, get medical attention. Ingestion: Flush mouth with water. Do not induce vomiting. If medical attention is needed, get medical attention.	
5. FIRE FIGHTING MEASURES Flash Point: Not applicable Autoignition Temperature: Not applicable Extinction Media: Dry powder, CO2, water Special Firefighting Needs: Do not use water on electrical fires. Do not use alcohol, acetone, or other solvents. Unstable/Explosive Mixtures: None		5. FIRE FIGHTING MEASURES Flash Point: Not applicable Autoignition Temperature: Not applicable Extinction Media: Dry powder, CO2, water Special Firefighting Needs: Do not use water on electrical fires. Do not use alcohol, acetone, or other solvents. Unstable/Explosive Mixtures: None	
6. ACCIDENTAL RELEASE MEASURES Personal Protection: Use appropriate personal protective equipment (PPE). Environmental Precautions: For larger spills, cover drains and turn them to prevent any run-off into waterways or storm drains. Collect for recycling and proper disposal. Place in a metal container for transportation by appropriate vehicles. Dispose of collected material as soon as possible. Methods for Containment and Cleanup: Contain and absorb spill with appropriate materials. Clean up spill immediately. Do not allow spill to enter drains. Collect and dispose of spill material properly. Do not allow spill to enter drains.		6. ACCIDENTAL RELEASE MEASURES Personal Protection: Use appropriate personal protective equipment (PPE). Environmental Precautions: For larger spills, cover drains and turn them to prevent any run-off into waterways or storm drains. Collect for recycling and proper disposal. Place in a metal container for transportation by appropriate vehicles. Dispose of collected material as soon as possible. Methods for Containment and Cleanup: Contain and absorb spill with appropriate materials. Clean up spill immediately. Do not allow spill to enter drains. Collect and dispose of spill material properly. Do not allow spill to enter drains.	
7. HANDLING AND STORAGE Precautions for Safe Handling: Avoid contact with skin, inhalation of mist, or ingestion. Do not use in confined spaces. Use in well-ventilated areas. Do not use in areas where food is prepared or consumed. Do not use in areas where children are present. Do not use in areas where pets are present. Do not use in areas where smoking is prohibited. Do not use in areas where open flames are present. Do not use in areas where electrical equipment is present. Do not use in areas where heat sources are present. Do not use in areas where fire hazards are present. Do not use in areas where explosion hazards are present. Do not use in areas where other hazards are present.		7. HANDLING AND STORAGE Precautions for Safe Handling: Avoid contact with skin, inhalation of mist, or ingestion. Do not use in confined spaces. Use in well-ventilated areas. Do not use in areas where food is prepared or consumed. Do not use in areas where children are present. Do not use in areas where pets are present. Do not use in areas where smoking is prohibited. Do not use in areas where open flames are present. Do not use in areas where electrical equipment is present. Do not use in areas where heat sources are present. Do not use in areas where fire hazards are present. Do not use in areas where explosion hazards are present. Do not use in areas where other hazards are present.	
8. EXPOSURE CONTROL/PERSONAL PROTECTION Control Parameters: Use appropriate personal protective equipment (PPE). Engineering Controls: Use appropriate ventilation. Do not use in confined spaces. Do not use in areas where food is prepared or consumed. Do not use in areas where children are present. Do not use in areas where pets are present. Do not use in areas where smoking is prohibited. Do not use in areas where open flames are present. Do not use in areas where electrical equipment is present. Do not use in areas where heat sources are present. Do not use in areas where fire hazards are present. Do not use in areas where explosion hazards are present. Do not use in areas where other hazards are present.		8. EXPOSURE CONTROL/PERSONAL PROTECTION Control Parameters: Use appropriate personal protective equipment (PPE). Engineering Controls: Use appropriate ventilation. Do not use in confined spaces. Do not use in areas where food is prepared or consumed. Do not use in areas where children are present. Do not use in areas where pets are present. Do not use in areas where smoking is prohibited. Do not use in areas where open flames are present. Do not use in areas where electrical equipment is present. Do not use in areas where heat sources are present. Do not use in areas where fire hazards are present. Do not use in areas where explosion hazards are present. Do not use in areas where other hazards are present.	
9. PHYSICAL AND CHEMICAL PROPERTIES Physical State: Liquid Color: Clear Odor: None pH: Not applicable Boiling Point: Not applicable Freezing Point: Not applicable Flash Point: Not applicable Vapor Pressure: Not applicable Specific Gravity: Not applicable Solubility: Not applicable		9. PHYSICAL AND CHEMICAL PROPERTIES Physical State: Liquid Color: Clear Odor: None pH: Not applicable Boiling Point: Not applicable Freezing Point: Not applicable Flash Point: Not applicable Vapor Pressure: Not applicable Specific Gravity: Not applicable Solubility: Not applicable	

33

EMPLOYEE TRAINING

- ⊛ Methods and observations used to detect the presence/release
- ⊛ Physical, health, simple asphyxiation, combustible dust, and other
- ⊛ Protective measures
- ⊛ Details of range's HAZCOM program
- ⊛ Lead
 - ⊛ Reproductive/developmental toxicity
 - ⊛ Central nervous system effects
 - ⊛ Kidney effects
 - ⊛ Blood effects, and
 - ⊛ Acute toxicity effects



37

EMPLOYEE TRAINING ACTION PLAN

- ⊛ Provide information/training prior to chemical use/exposure
 - ⊛ Retrain when a new chemical hazard is introduced
 - ⊛ State OSHA Plan states may require annual training
- ⊛ Supplement off-the-shelf training
 - ⊛ Include site specific details
- ⊛ Require employees to demonstrate their understanding
- ⊛ Conduct facility walks to evaluate compliance



38

HAZCOM RECAP

- ✱ Implement and maintain a written hazard communication program
- ✱ Maintain labels on incoming containers - do not deface/remove
- ✱ Ensure chemicals in workplace are properly labeled, tagged, or marked
- ✱ Retain SDSs from shipments
- ✱ Obtain SDSs if not received
- ✱ Ensure SDSs are readily accessible and up to date
- ✱ Provide information and training to employees
- ✱ Plan for employees in multi-employer workplaces

39

Additional Questions?

Email NSSF at:
membership@nssf.org



T: 203.426.1320 | nssf.org
