

Are You Prepared for HazCom v2.0?

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Bayer HealthCare



Outline

- History
- Hazard Determinations
- Safety Data Sheets (SDS)
- Labels
- Training
- Written Program
- Conclusion

Hazard Communication

(HazCom – a.k.a. ‘Employee Right-to-Know’)

- 29 CFR 1910.1200 or 29 CFR 1926.59
- Employee right to access hazard information
- Labels, Material Safety Data Sheets, Written Program
- Spawned a whole information industry
- Troubled compliance history

HazCom Violations

Fiscal Year	Placement	Violations
FY2014	2 nd	5,161 violations (thru 8/11/2014)
FY2013	2 nd	6,156 violations
FY2012	2 nd	4,696 violations
FY2011	3 rd	6,538 violations
FY2010	3 rd	6,633 violations
FY2009	3 rd	6,378 violations
FY2008	3 rd	6,662 violations
FY2007	1 st	4,966 violations
FY2006	2 nd	6,704 violations
FY2005	2 nd	7,267 violations
FY2004	2 nd	7,318 violations
FY2003	2 nd	6,800 violations
FY2002	2 nd	6,702 violations
FY2001	1 st	7,134 violations
FY2000	2 nd	2,421 (serious) violations

The top ten for FY 2014, as of August 11, 2014

- **Fall Protection (1926.501) – 6,143**
- **Hazard Communication (1910.1200) – 5,161**
- **Scaffolding (1926.451) – 4,029**
- **Respiratory Protection (1910.134) – 3,223**
- **Lockout/Tagout (1910.147) – 2,704**
- **Powered Industrial Trucks (1910.178) – 2,662**
- **Electrical – Wiring Methods (1910.305) – 2,490**
- **Ladders (1926.1053) – 2,448**
- **Machine Guarding (1910.212) – 2,200**
- **Electrical – General Requirements (1910.303) – 2,056**

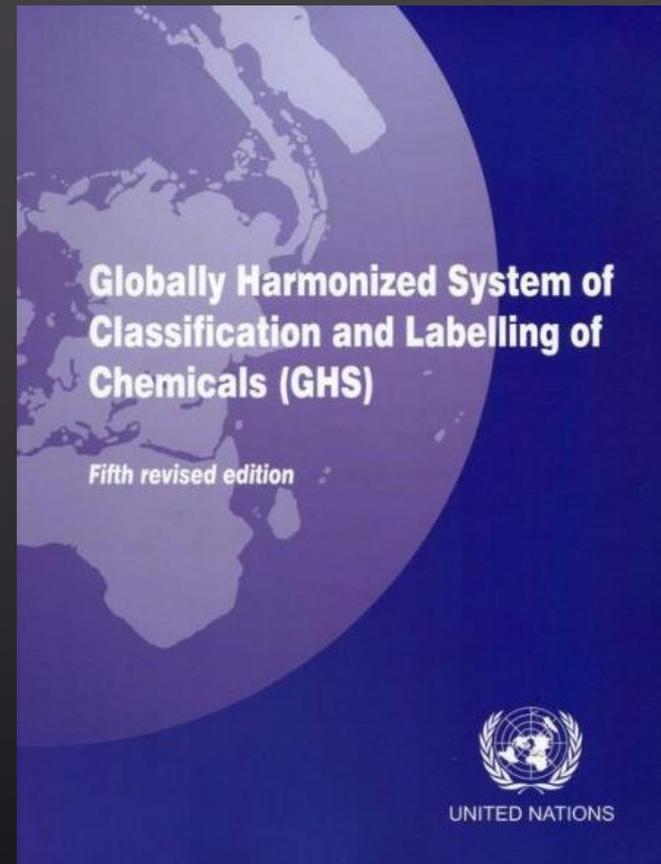
Source: ISHN, September 17, 2014, <http://www.ishn.com/articles/99645-top-ten-most-frequently-cited-osha-standards-for-fy-2014>

History

Date	Event
1974	Rulemaking initiated by OSHA
November 25, 1983	Original final rule published
August 24, 1987	Expanded scope to cover more employees
March 11, 1994	Minor changes and technical amendments
May 25, 2012	Alignment with Globally Harmonized System (GHS)
December 1, 2013	Train employees on new label and SDS formats
June 1, 2015	All to comply with HazCom 2012 (except dates below)
December 1, 2015	Distributors must use GHS-compliant labels
June 1, 2016	Employers use new internal labeling, update written program, and complete training for newly identified hazards.

Globally Harmonized System (GHS)

- United Nation's *Globally Harmonized System of Classification and Labelling of Chemicals (GHS)*.
- The "Purple Book"



R20 - Harmful by inhalation.

R21 - Harmful in contact with skin.

R22 - Harmful if swallowed.

R23 - Toxic by inhalation.



H319 Causes serious eye irritation.

H320 Causes eye irritation

H330 Fatal if inhaled.

H331 Toxic if inhaled.

LC₅₀ (Fathead Minnows) = 9 mg/L/96 hr.

EC₅₀ (Daphnia) = 8.6 mg/L/48 hr.



P303+P361+P353 IF ON SKIN (or hair):
Remove/Take off immediately all
contaminated clothing. Rinse skin with
water/shower.

P305+P351+P338 IF IN EYES: Rinse
cautiously with water for several minutes.
Remove contact lenses, if present and
easy to do. Continue rinsing.

P370+P380+P375 In case of fire:
Evacuate area. Fight fire remotely due to
the risk of explosion.

MATERIAL SAFETY DATA SHEET



I. IDENTIFICATION



FLAMMABILITY -
HEALTH - 1
REACTIVITY - 0

LABEL NAME:
PRODUCT NAME:
PRODUCT TYPE: F
CAS #: N/A
FEMA #: N/A

0 = LEAST
1 = SLIGHT
2 = MODERATE
3 = HIGH
4 = EXTREME

II. FIRE EXPLOSION AND REACTIVITY DATA

FLASHPOINT: 115°
EXTINGUISHING MEDIA: CARBON DIOXIDE, FOAM, OR DRY CHEMICAL.
SPECIAL FIRE FIGHTING PROCEDURES: NONE
UNUSUAL FIRE AND EXPLOSIVE HAZARDS: NONE
HAZARDOUS COMBUSTION PRODUCTS: BURNING LIBERATES CARBON MONOXIDE, CARBON DIOXIDE AND SMOKE.
STABILITY: NORMALLY STABLE EVEN AT ELEVATED TEMPERATURE AND PRESSURES.
CONDITIONS TO AVOID: EXCESSIVE HEAT.
MATERIALS TO AVOID: STRONG OXIDIZING AGENTS.
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

III. PHYSICAL DATA

ODOR: N/A
COLOR: N/A
APPEARANCE AND PHYSICAL STATE: N/A
SPECIFIC GRAVITY: (25/25 DEGREES C) N/A
REFRACTIVE INDEX: (25/25 DEGREES C) N/A
VAPOR PRESSURE: (AT 20 DEGREES C IN MM HG) NOT AVAILABLE
VAPOR DENSITY: (AIR = 1) GREATER THAN 1
SOLUBILITY IN WATER: INSOLUBLE

IV. PROTECTIVE INFORMATION

RESPIRATORY:
EXPOSURE TO HIGH
RESPIRATOR
VENTILATION:
EYE PROTECTION:
PROTECTIVE GLOVES:

NONE USUALLY REQUIRED, PROLONGED
CONCENTRATIONS USE OSHA APPROVED
GENERAL VENTILATION SATISFACTORY,
SPASH RESISTANT SAFETY GLASSES,
OIL RESISTANT GLOVES.

OTHER PROTECTIVE EQUIPMENT: EYE WASH FACILITY.

V. HEALTH HAZARD INFORMATION

AS REQUIRED UNDER SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT - TO - KNOW ACT WE ARE REPORTING THE D.E.P. (CAS # 84-66-2) CONTENT IN THE FOLLOWING COMPOUND(S) CURRENTLY BEING PURCHASED FROM INTAROME. PLEASE ADD THIS INFORMATION TO YOUR M.S.D.S. FILES.

DIETHYL PHTHALATE (N/A)

THE IDENTITY OF INDIVIDUAL COMPONENTS OF THIS MIXTURE IS PROPRIETARY INFORMATION AND IS REGARDED AS A TRADE SECRET.

ONE OR MORE OF THE COMPONENTS PRESENT IN GREATER THAN 1% CONCENTRATION, MAY PRESENT THE FOLLOWING HEALTH EFFECTS. BASED ON EVALUATION OF THE INDIVIDUAL COMPONENTS.

LIQUID AND VAPOR MAY NE IRRITATION TO SKIN, EYES, THROAT AND LUNGS.

VI. EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT: FLUSH IMMEDIATELY WITH COPIOUS AMOUNT OF WATER. IF IRRITATION PERSISTS, OBTAIN MEDICAL ADVICE.
SKIN CONTACT: WASH WELL WITH SOAP AND WATER.
INGESTION: IN THE EVENT OF ACCIDENTIAL INGESTION, DO NOT INDUCE VOMITING. RINSE MOUTH WITH WATER. GIVE UP TO ONE TUMBLER OF MILK OR WATER. OBTAIN MEDICAL ADVICE IMMEDIATELY.
INHALATION: IF OVERCOME, REMOVE TO FRESH AIR IMMEDIATELY. CALL PHYSICIAN.
OTHER: NONE.

VII. SPILL, LEAK AND DISPOSAL PROCEDURES

PRECAUTIONS IF MATERIAL IS SPILLED OR RELEASED: DIKE AND ABSORB SPILL WITH AN INERT MATERIALS SUCH AS SAND OR EARTH, AND TRANSFER TO A SUITABLE CONTAINER FOR DISPOSAL.

WASTE DISPOSAL METHODS: INCINERATE SOAKED ABSORBENT OR DISPOSE IN CONFORMITY WITH LOCAL DISPOSAL REGULATIONS. THE MATERIALS SHOULD NOT BE DISPOSED OF IN ANY TYPE OF EFFLUENT.

THE INFORMATION IN THIS MSDS WAS OBTAINED FROM CURRENT AND REPUTABLE SOURCES. HOWEVER, THE DATA IS PROVIDED WITHOUT WARRANTY, EXPRESSED OR IMPLIED, REGARDING IT'S CORRECTIONS OR ACCURACY. IT IS THE USER'S RESPONSIBILITY WITH TO DETERMINE SAFE CONDITIONS FOR THE USE OF THIS PRODUCT AND TO ASSUME LIABILITY FOR LOSS, INJURY, DAMAGE OR EXPENSE RESULTING FROM IMPROPER USE OF THIS PRODUCT.

DATE: 9/10/07

Major Changes...

- Process of making hazard determinations (Manufacturers & Importers)
- SDS content and formatting
- Label content and formatting
- Training

Hazard Determination

Old Method

- 29 CFR 1910.1200(d) and Appendix A & B
- Either hazardous or non-hazardous
- “*Hazardous chemical*” = either a *health hazard* or *physical hazard*
- Single study was sufficient!
- Performance-oriented: led to varying conclusions
- Up to evaluator how to describe hazards
- OSHA provided basic guidance and evaluated subjectively

Hazard Determination

Under GHS

- 29 CFR 1910.1200(d) and Appendices A, B, & F
- Hazard determination became more prescriptive (uniform?)
- Determine if hazardous and degree of hazard!
 - Hazard Class & Hazard Category
- Now use a weight of evidence approach vs. single study
- “*Hazardous chemical*” = either a *health hazard* or *physical hazard*
plus:
 - simple asphyxiant
 - combustible dusts
 - pyrophoric gas
 - hazards not otherwise classified (HNOC)
- “*Health hazard*” now includes germ cell mutagenicity
- “*Physical hazard*” now includes corrosive to metal and contact with water emits flammable gas

Physical Hazards

- Compressed Gas
 - Combustible Liquid
 - Explosive
 - Flammable
 - Organic peroxide
 - Oxidizer
 - Pyrophoric
 - Unstable (reactive)
 - Water-reactive
- Pressurized Gases (4 Groups)
 - Flammable Gases (Category 1 & 2)
 - Flammable Aerosols (Category 1 & 2)
 - Flammable Liquids (Cat. 1, 2, 3, 4)
 - Flammable Solids (Cat. 1 & 2)
 - Organic Peroxides (Types A – G)
 - Oxidizing Gases (Category 1)
 - Oxidizing Liquids (Cat. 1, 2, 3)
 - Oxidizing Solids (Cat. 1, 2, 3)
 - Pyrophoric Liquids (Category 1)
 - Pyrophoric Solids (Category 1)
 - Self-Heating (Cat. 1 & 2)
 - Self-Reactive (Types A – G)
 - Water-reactive Emitting Flammable Gases (Cat. 1, 2, 3)
 - Corrosive to Metal (Category 1)
-
- ```
graph LR; A[Compressed Gas] --> B[Pressurized Gases (4 Groups)]; C[Combustible Liquid] --> D[Flammable Gases (Category 1 & 2)]; E[Explosive] --> D; F[Flammable] --> D; G[Organic peroxide] --> H[Organic Peroxides (Types A - G)]; I[Oxidizer] --> J[Oxidizing Gases (Category 1)]; K[Pyrophoric] --> L[Pyrophoric Liquids (Category 1)]; M[Unstable (reactive)] --> N[Self-Reactive (Types A - G)]; O[Water-reactive] -.-> P[Water-reactive Emitting Flammable Gases (Cat. 1, 2, 3)]; D --- Q[Flammable Aerosols (Category 1 & 2)]; D --- R[Flammable Liquids (Cat. 1, 2, 3, 4)]; D --- S[Flammable Solids (Cat. 1 & 2)]; J --- T[Oxidizing Liquids (Cat. 1, 2, 3)]; J --- U[Oxidizing Solids (Cat. 1, 2, 3)]; L --- V[Pyrophoric Solids (Category 1)]; P --- W[Corrosive to Metal (Category 1)];
```

# Health Hazards

- Acute
  - Chronic
  - Carcinogen
  - Corrosive
  - Highly Toxic
  - Irritant
  - Sensitizer
  - Toxic
  - Target Organ Effects
    - Hepatotoxin
    - Nephrotoxin
    - Neurotoxin
    - Hemato-poietic/Blood
    - Lung
    - Reproductive toxin
    - Cutaneous hazard
    - Eye hazard
- Acute (Category 1, 2, 3, 4)
  - Carcinogenicity (Cat. 1, 1A, 1B, 2)
  - Skin Corrosion (Cat. 1,2)
  - Eye Damage/Irritation (Cat. 1, 2A, 2B)
  - Resp/Skin Sensitizer (Cat. 1, 1A, 1B)
  - Germ Cell Mutagen(Cat. 1, 1A, 1B, 2)
  - Aspiration Hazard (Category 1)
  - Target Organ Effects: **Single Exposure** (Cat. 1, 2, 3)
  - Target Organ Effects: **Multiple/Prolonged Exposure** (Cat. 1, 2)
  - Reproductive Toxin (Cat. 1, 1A, 1B, 2, **Lactation**)
-

# The Result?

- Hazard information should be more consistent between SDS
- More information may present training / comprehension challenges
- Likely that many products will be described as more harmful than previously disclosed
- Hazard determination will become more complex
- Courts weigh in on weight of evidence approach?
  - Some studies allowed in EU not recognized by U.S. courts
  - Some argue 'proof of causation' will be illegally lowered
  - Manufacturers in between a rock and a hard spot

# Safety Data Sheets (SDS)

- Dropped the “M”
- Previous SDS formats were left to discretion of creator.
- Migrating to prescriptive 16-section ANSI format.
- Anticipate complete change-over in your SDS inventory in next ~2 years.
- Remember December 1, 2013 training deadline!

# Will Your Employees Understand This?

**SAFETY DATA SHEET** according to Regulation (EC) No. 1907/2006 122000001428  
**Pradofloxacin Drug**  
Version 10.0 Revision Date 05.06.2013 Print Date 06.06.2013

**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1 Product identifier**  
Pradofloxacin Drug

**1.2 Relevant identified uses of the substance or mixture and uses advised against**  
Use of the Substance/Mixture : Active ingredient

**1.3 Details of the supplier of the safety data sheet**  
Company  
Bayer Animal Health GmbH  
Alfred-Nobel-Str. 50  
D-40789 MONHEIM  
Tel.: +49 (0) 214 30 46440  
Mail: msds@bayerhealthcare.com

**1.4 Emergency telephone number**  
In case of emergency: +49 (0) 214 30 32 38 38

**2. HAZARDS IDENTIFICATION**

**2.1 Classification of the substance or mixture**

**GHS-Classification (according to EC 1272/2008):**  
Acute toxicity, Oral, Category 4 (H302)  
Germ cell mutagenicity, Category 2 (H341)  
Hazardous to the aquatic environment, Category 3 (H412)

**Classification (67/548/EEC, 1999/45/EC)**  
Harmful

Mutagenic Category 3

Dangerous for the environment  
Harmful if swallowed.

Possible risk of irreversible effects.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**2. HAZARDS IDENTIFICATION**

**2.1 Classification of the substance or mixture**

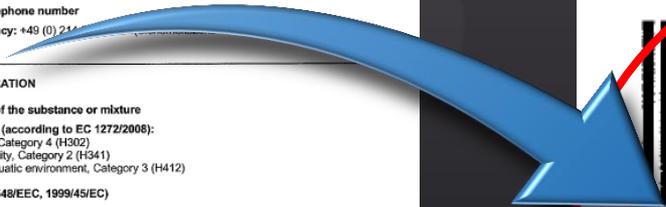
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Dangerous for the environment  
Harmful if swallowed.

Possible risk of irreversible effects.



# Labels

## 29 CFR 1910.1200(f)

- Label content changing dramatically, but format is flexible.
- Labels must be color to allow for red-bordered pictograms
- Mandatory Appendix C (in 29 CFR 1910.1200) contains detailed language requirements for labels based on Hazard Class/Category.
- June 1, 2015: Containers must be GHS-labeled by mfg.
- December 1, 2015: Cannot ship unless GHS-labeled
- June 1, 2016: Employers must update workplace labeling on secondary containers.

# Label Content

## Required Old Content

- Product Identifier
- Appropriate Hazard Warnings
- Substance-specific info (if applicable)
- Name, Address of responsible party\*

## Required New Content

- Product Identifier
- Signal Word: Danger or Warning
- Pictogram (red border)
- Hazard Statement
- Precautionary Statement
- Name, Address, Phone of responsible party\*

\* Not required for downstream employers

# Appendix C: Example

| C.4.3 ACUTE TOXICITY - INHALATION<br>(Classified in Accordance with Appendix A.1)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                         |                                                                                                                                                              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                         | <b>Pictogram</b><br>Skull and crossbones                                                                                                                     |
| <b>Hazard category</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Signal word</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>Hazard statement</b>                                                                                                                                                                 |                                                                           |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Danger                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Fatal if inhaled                                                                                                                                                                        |                                                                                                                                                              |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Danger                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Fatal if inhaled                                                                                                                                                                        |                                                                                                                                                              |
| Precautionary statements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                         |                                                                                                                                                              |
| <b>Prevention</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>Response</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Storage</b>                                                                                                                                                                          | <b>Disposal</b>                                                                                                                                              |
| <p><b>Do not breathe dust/fume/gas/mist/vapors/spray.</b><br/>           Chemical manufacturer, importer, or distributor to specify applicable conditions.</p> <p><b>Use only outdoors or in a well-ventilated area.</b></p> <p><b>[In case of inadequate ventilation] wear respiratory protection.</b><br/>           Chemical manufacturer, importer, or distributor to specify equipment.<br/> <i>- Text in square brackets may be used if additional information is provided with the chemical at the point of use that explains what type of ventilation would be adequate for safe use.</i></p> | <p><b>If inhaled: Remove person to fresh air and keep comfortable for breathing.</b></p> <p><b>Immediately call a poison center/doctor/...</b><br/>           ... Chemical manufacturer, importer, or distributor to specify the appropriate source of emergency medical advice.</p> <p><b>Specific treatment is urgent (see ... on this label)</b><br/>           ... Reference to supplemental first aid instruction.<br/> <i>- if immediate administration of antidote is required.</i></p> | <p><b>Store in a well-ventilated place. Keep container tightly closed.</b><br/> <i>- if product is volatile as to generate hazardous atmosphere.</i></p> <p><b>Store locked up.</b></p> | <p><b>Dispose of contents/container to...</b><br/>           ... in accordance with local/regional/national/international regulations (to be specified).</p> |

## SAMPLE LABEL

### PRODUCT IDENTIFIER

CODE \_\_\_\_\_

Product Name \_\_\_\_\_

### SUPPLIER IDENTIFICATION

Company Name \_\_\_\_\_

Street Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

Postal Code \_\_\_\_\_ Country \_\_\_\_\_

Emergency Phone Number \_\_\_\_\_

### PRECAUTIONARY STATEMENTS

Keep container tightly closed. Store in cool, well ventilated place that is locked.

Keep away from heat/sparks/open flame. No smoking.

Only use non-sparking tools.

Use explosion-proof electrical equipment.

Take precautionary measure against static discharge.

Ground and bond container and receiving equipment.

Do not breathe vapors.

Wear Protective gloves.

Do not eat, drink or smoke when using this product.

Wash hands thoroughly after handling.

Dispose of in accordance with local, regional, national, international regulations as specified.

**In Case of Fire:** use dry chemical (BC) or Carbon dioxide (CO<sub>2</sub>) fire extinguisher to extinguish.

### First Aid

If exposed call Poison Center.

If on skin (on hair): Take off immediately any contaminated clothing. Rinse skin with water.

### HAZARD PICTOGRAMS



### SIGNAL WORD

**Danger**

### HAZARD STATEMENT

**Highly flammable liquid and vapor.  
May cause liver and kidney damage.**

### SUPPLEMENTAL INFORMATION

#### Directions for use

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Fill weight: \_\_\_\_\_ Lot Number \_\_\_\_\_

Gross weight: \_\_\_\_\_ Fill Date: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

### Health Hazard



- Carcinogen
- Mutagenicity
- Reproductive Toxicity
- Respiratory Sensitizer
- Target Organ Toxicity
- Aspiration Toxicity

### Flame



- Flammables
- Pyrophorics
- Self-Heating
- Emits Flammable Gas
- Self-Reactives
- Organic Peroxides

### Exclamation Mark



- Irritant (skin and eye)
- Skin Sensitizer
- Acute Toxicity (harmful)
- Narcotic Effects
- Respiratory Tract Irritant
- Hazardous to Ozone Layer (Non-Mandatory)

### Gas Cylinder



- Gases Under Pressure

### Corrosion



- Skin Corrosion/ Burns
- Eye Damage
- Corrosive to Metals

### Exploding Bomb



- Explosives
- Self-Reactives
- Organic Peroxides

### Flame Over Circle



- Oxidizers

### Environment (Non-Mandatory)



- Aquatic Toxicity

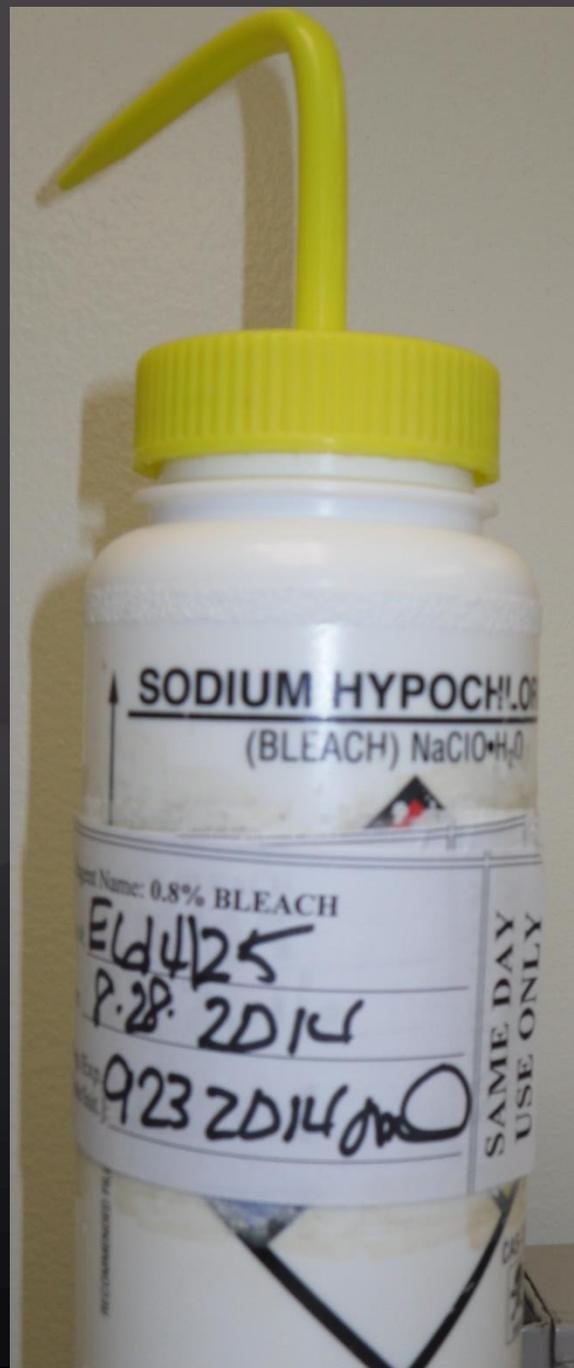
### Skull and Crossbones



- Acute Toxicity (fatal or toxic)

# 2° Container Labeling

- Employers will be busy labeling secondary containers
- For new hazards, don't need to update manufacturer labels, BUT DO need to update secondary container labels



# OSHA vs. NFPA

Identifier: NOMDUP 7042012



**DANGER**

**Hazard Statements:**  
Extremely Flammable Gas  
May Cause Cancer  
May Cause Respiratory Irritation  
In Contact with Water Releases Flammable Gas

**Precautionary Statements:**  
Keep away from heat/sparks/open flames/hot surfaces—No Smoking  
Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood.  
Avoid breathing vapors and mist.  
Wear protective gloves and eye protection.  
If inhaled: Remove person to fresh air and keep comfortable for breathing.  
Call poison control center if you feel unwell.  
Leaking Gas Fire: Do not extinguish unless leak can be stopped safely.  
Eliminate all ignition sources if safe to do so.  
Store in tightly closed container in a well-ventilated place, locked up.  
Use outdoors or use in a well-ventilated place.  
Degree of content in accordance with local/regional/national regulations.

XYZ Chemical Company 123 Main St. Anywhere, NY, USA 140900061111



- Opposite numbering schemes (Worst: OSHA = 1, NFPA = 4)
- OSHA Hazard Category numbers on SDS, typically not labels
- Emergency Responders vs. Normal Use / Foreseeable Emergencies
- NFPA format only applies to acute effects (were they ever appropriate for workplace labeling?)
- See OSHA Quick Card:  
<https://www.osha.gov/Publications/OSHA3678.pdf>

# Training

29 CFR 1910.1200(h)

- With the exception of mandated new training dates, not a lot has changed.
- Must distinguish between internal vs. external HazCom labeling if different formats used.
- Must review the order of information in new 16-section SDS.
- Must train on new hazards from revised SDS (compared to old). Could require multiple training sessions as new SDS appear with new hazards!
- Performance oriented requirement to demonstrate employees understand.
- Time-tested hints:
  - Make it applicable
  - Give specific examples
  - Distinguish between hazard and risk

# Trade Secrets

29 CFR 1910.1200(i)

- Percent composition of a substance in a mixture is now specifically mentioned (in addition to chemical name or other specific identification).
- Trade secrecy does not apply if can readily reverse-engineer!

# Written Program

29 CFR 1910.1200(e)

- HazCom 2012 only included very minor changes.
- No change in requirements for employers.
- Continues to be a common OSHA violation!
- Review your program against Section (e) requirements!
  - List of chemicals / inventory
  - Hazards of non-routine tasks
  - Multi-employer workplaces / Contractors
  - In short, how the program is managed

# Inventories

- If not using enterprise-wide software, why not add:
  - Health/Physical effects
  - Target organs
  - Exposure routes
  - PPE required
  - Applicable JHA/JSA
  - Waste disposal status / management

# Conclusion

- Historically a major enforcement target by OSHA
- GHS was needed but will present compliance issues
- Forecast a deluge of new SDS.
- Be prepared for employee 'info shock' as new SDS and labels become available.
- Take this as an opportunity to overhaul your program and improve.

# Thank You

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