WHAT-TO-DO BOOKLET

A Template for Compliance With

(29 CFR 1910.1200 and 29 CFR 1926.59)

Hazard Communication Standard

And

(0800-1-1-.09)

The Tennessee Hazardous Chemical Right-To-Know Law

GHS

GHS

Revised November, 2012

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STEP 1

Determine Who Is Responsible For Implementing These Laws In Your Workplace

NAME: _____

TITLE: _____

NOTE:

In many workplaces it will be difficult for one person to implement this program. If your workplace has responsibilities such as purchasing, receiving of incoming materials, plant engineering, etc., delegated to different individuals, you may desire to assemble these persons into a team or committee. This team can more effectively deal with the development of a Hazard Communication Standard/Tennessee Hazardous Chemical Right-to-Know Law (HCS/HCRTK) program since each member will have a unique point of view and different expertise.

List Team Members

Name _____ Title _____

Name _____ Title _____

Name _____ Title _____

STEP 2

Make A List Of All Chemicals (Substances) In The Workplace By Product Identity (Use Inventory Worksheet - Appendix A)

NOTE:

Examples of such chemicals commonly found are:

Paints, glues, solvents, strippers, welding rods, janitorial cleaning materials, flammables, combustible liquids, explosives, powders, dusts, metals, compressed gases and air, acids, caustics, oils, abrasives and pesticides.

These materials may be found in small and large cans and bottles, bags, boxes, containers, cylinders, drums, tanks (bulk) and tank cars.

Articles (e.g. manufactured items which do not release, or otherwise result in exposure to a hazardous chemical, under normal conditions of use) are exempt from this program.

EXAMPLE

Product Identifier	Hazardous	Non-hazardous
Red 213 paint		
Toluene		
Welding rods - 304 stainless steel		
Ajax Cleanser		
Propane		

STEP 3

Add To The Inventory Worksheet Chemicals (Substances) Produced In Your

Examples of such are:

Carbon monoxide from lift trucks and other combustion processes
Welding fumes
Wood dust
Compressed air
Asbestos from pipes, ceilings, walls, floors, etc.
Hydrogen cyanide when cyanide plating is done

Product Identifier	Hazardous	Non-hazardous
Red 213 paint		
Toluene		
Welding rods - 304 stainless steel		
Ajax Cleanser		
Propane		
Carbon monoxide (lift truck)		
Compressed air		
Welding fumes		

STEP 4

Obtain Current Safety Data Sheets (SDS) From Suppliers For All Chemicals (Substances)

- SDSs have existed for many years. They are required to be provided to the employer upon the initial shipment of any hazardous chemical and within six months of an update.
    - If you are unable to get an SDS from a supplier, contact your local TOSHA office for assistance. According to Tennessee State Law, if a chemical is not hazardous as defined by the Standard, a written statement to this effect must be provided.
- You need not obtain SDSs for chemicals (and therefore they are exempt from this program) which meet all the following requirements:

1. They are consumer products
2. They are used for the purpose intended by the manufacturer
3. They are not used more frequently, or for longer periods of time, than a consumer uses them

If you do not obtain an SDS for these reasons, place a comment such as "not needed" or "quantity too small" in the HAZARDOUS column of the Inventory Worksheet.

STEP 5

Determine Which Chemicals (Substances) On Your Inventory Worksheet Are Hazardous (Use Safety Data Sheets)

- Some SDSs may have a direct statement telling you if a material is hazardous or not.

- Consider a material to be hazardous if it is classified as a
  - Health hazard
  - Physical hazard
  - Simple asphyxiant
  - Combustible dust
  - Pyrophoric gas or
  - Hazard not otherwise classified

- If a chemical is non-hazardous, or a consumer product, mark it accordingly on the inventory worksheet.

STEP 6

Ensure That All Containers Are Properly Labeled, Tagged Or Marked

- Proper labels on shipped containers must include the following:

  a. Product identifier

  b. Signal word

  c. Hazard statement(s)

  d. Pictogram(s)

  e. Precautionary statement(s)

  f. Name, address and telephone of the chemical manufacturer, importer, or other responsible party

- When chemicals are transferred to a secondary container in the workplace, that container must be labeled with either of the following:
  a. The information in a – e listed above or

  b. Product identifier and words, pictures, symbols or combination thereof to provide adequate information regarding the physical and health hazards

STEP 7A

(Chemical Manufacturers and Importers Only)

Prepare A Hazard Classification Program Which Describes The Procedures Used To Determine The Hazards Of The Chemicals (Substances) Produced Or Imported

Hazard Classification Program

1. The program should describe how you will classify chemicals and determine the hazard classes and, where appropriate, the category of each class

2. Consider the full range of available scientific literature and other evidence concerning the potential hazards

3. Use Appendix A to 29 CFR 1910.1200 to classify health hazards

4. Use Appendix B to 29 CFR 1910.1200 to classify physical hazards

5. When classifying mixtures, current safety data sheets for the individual ingredients may be relied upon for the appropriate information

STEP 7B

Prepare A Written Hazard Communication Program

A Suggested Program

The _____(fill in the assigned person's job title)_____ is responsible for the communication and implementation of the program to employees.

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A. Labels and other forms of warning

Labels and other forms of warning for each incoming hazardous chemical will be inspected for compliance with Section (f) of the standard to ensure that proper forms of warning are posted. For hazardous chemicals produced within the facility (such as carbon monoxide and welding products), warnings must be posted.

1. The GHS labeling system we will use is as described in 29 CFR 1910.1200 with each label to include the product identifier, signal word, hazard statement(s), pictograms, precautionary statement(s), and name, address, and telephone number of the responsible party.

2. The ___(fill in the assigned person's job title)_____ is responsible for ensuring that all incoming containers of chemicals are properly labeled.

3. Each person is responsible for reporting unlabeled containers to (fill in the assigned person's job title)_____

B. Safety Data Sheets (SDS)

SDS for each hazardous chemical to which employees are or may be exposed will be obtained and made readily available according to the requirements of section (g) of the standard. For new chemicals, SDSs will be made available prior to use. For hazardous chemicals produced internally (such as carbon monoxide and welding fumes), an SDS may be used or developed to satisfy the physical and health hazard communication requirements.

C. Employee Information and Training

1. Information and training as required by Section (h) will be provided to all employees at the time of initial assignment for existing hazards, whenever a new hazard is introduced into their work area, and when new information about the hazards of a chemical is found. Additionally, the Tennessee Hazardous Chemical Right-to-Know Law requires **annual refresher training**.

2. Included in the training will be the health, physical, simple asphyxiation, combustible dust and pyrophoric gas hazards of the chemical in the work area**.**

3. Included in the training will be hazards not otherwise classified of the chemicals in the work area

4. Included in the training will be an explanation of the labels received on shipped containers and the workplace labeling system used

5. Included in the training will be safety data sheet information, including the order of information

6. Employees will be trained to be able to verbally recall fundamental hazards associated with the specific chemicals to which they are exposed.

7. The trainers are _____

   _____

8. The training will utilize such aids and methods as the following:

   _____

   _____

   _____

D .Hazardous Chemicals List

The 'Inventory Worksheet' partially fulfills this requirement**.***
(Please alphabetize and use as the Content page with your overall SDS file).

E. Multi-Employer Activity

Other employers who have employees in our facilities who may be exposed to hazardous chemicals will be provided access to the written hazard communication program. They will be shown the SDSs for the chemicals to which they may be exposed and will be informed of any precautionary measures, such as signs and procedures, necessary to protect them during normal operating conditions or in the event of foreseeable emergencies. The labeling system we use will be explained.

Our employees who work in other employer worksites must be afforded the same requirements as in the preceding paragraph before beginning work.

F. Non-Routine Tasks

Periodically, employees are required to perform non-routine tasks which are hazardous. Some examples of non-routine tasks are: Prior to starting work on such projects, each affected employee will be given information by the safety manager about the hazardous chemicals he or she may encounter during such activity. This information will include specific chemical hazards, protective and safety measures the employee can use, and steps the company is taking to reduce the hazards, including ventilation, respirators, the presence of another employee (buddy systems), and emergency procedures.

Other examples of non-routine tasks are:

- Cleaning of the dip tank in the cleaning department
- Emptying the bag house
- Painting the floors and walls

***To completely fulfill this requirement in Tennessee, see Steps 9 and 10.**

STEP 8

Train The Employees About The Hazardous Chemicals With Which They Work Or May Be Exposed To In A Foreseeable Emergency

First, train employees on the label content on containers of hazardous chemicals and on the Safety Data Sheet format.

TOSHA will expect employees to verbally recall answers to the following questions in simple language to inspectors:

1. What are the requirements of the hazard communication standard?

2. What hazardous chemical(s) are you exposed to, or may be exposed to, during normal use or in a foreseeable emergency?

3. Where is this chemical present?

4. What are the short and long term effects on the body, as well as the simple asphyxiant, combustible dust, and pyrophoric gas hazards of the chemical?

5. How can you detect if you are overexposed to the chemical(s)?

6. How can you protect yourself from overexposure?

7. Where are the SDS, chemical list, and written program located?

8. What information must be on the label on containers of hazardous chemicals?

9. What do the pictograms indicate? **See Appendix F**

- The Tennessee Right-To-Know Law requires that training be repeated annually and that records of the training be kept. Record all training dates, identify each employee trained, and provide a short description of the training given.

- You may use the SDS for training. Additional information and help may be obtained from TOSHA or other sources, such as www.osha.gov.

- Employees (e.g. maintenance personnel) who are exposed to many chemicals (multi-chemical exposure) may verbally recall the short and long term effects of chemicals on the body (Appendix C) to comply with the requirements of number 4.

STEP 9A

(MANUFACTURERS - STANDARD INDUSTRIAL CODES 20-39)

Prepare A Workplace Chemical List Using Safety Data Sheets

(Submit the Workplace Chemical List to TOSHA, at the address below, within 96 hours of request by a TOSHA representative.)

Workplace Chemical List
Tennessee Department Of Labor & Workforce Dev.
Division Of Occupational Safety And Health
220 French Landing Drive
Nashville, Tennessee 37243-0659

PROCEDURE:

1. Make a copy of Appendix D in this booklet and fill in the information at the top.

2. Enter the product identifier from the SDS in the "Product Identifier" Column. Complete the line.

3. For each product name enter all hazardous chemical ingredients from the safety data sheets in the chemical/component column.

4. Add compressed gases, flammable and combustible liquids similarly.

5. Enter all locations where the chemical is produced/stored or used.

STEP 9A (Cont)

Sample:

CHEMICAL/ COMPONENT NAME	CHEMICAL ABSTRACTS SERVICES (CAS) NO.	PRODUCT IDENTIFIER (LABEL IDENTITY)	WORK AREA WHERE CHEMICAL IS NORMALLY USED OR STORED
Toluene	108-88-3	Red 231, SL-Enamel, Gold Paint, Bright Yellow, Solvent-Y	Paint Room A
Lead	7439-92-1	Bright Yellow, Metal Shot	Paint Room Mfg. Area
Carbon Monoxide	630-08-0	Lift Truck Fumes	Lift Truck Area
Air (Compressed)	---	Air (Compressed)	Compressor Room
Iron Oxide Fume	1309-37-1	Steel, Welding Rods	Storage Rack/Cabinet
Fluoride	7440-47-3	Welding Rods	Storage Rack/Cabinet
Chromium	7440-47-3	Stainless Steel Welding Rods	304, 309 Storage Rack/Cabinet
Nickel	7440-02-0	Stainless Steel Welding Rods	304, 309 Storage Rack/Cabinet
Propane	74-98-6	Propane	Storage Rack
Mineral Spirits	64742-88-7	Paint: Safety Grey, Yellow	Paint Storage Cabinet

*Many containers of paints or oils (or such categories) may be grouped as "Paints" or "Oils."

*Remember, consumer products may be omitted from the list if they are:

a. used for the purpose intended, AND

b. used in the same frequency and duration as used by a consumer

STEP 9B

(Non-Manufacturing e.g., Agriculture, Construction, Forestry And Fishing, Retail Trade)

Prepare A Modified Workplace Chemical List Using Safety Data Sheets For Chemicals Present In Excess Of 500 Pounds Or 55 Gallons (Cumulative)

(Submit the Workplace Chemical List to TOSHA, at the address below, within 96 hours of request by a TOSHA representative.)

Workplace Chemical List
Tennessee Department Of Labor & Workforce Dev.
Division Of Occupational Safety And Health

PROCEDURE:

1. Make a copy of Appendix D of this booklet and fill in the information at the top.
2. Enter the product name from the SDS in the "Product/Identifier" Column. Complete the line.
3. For each product name, enter all hazardous ingredients from the SDSs in the chemical/component column.
4. Add compressed gases, flammable and combustible liquids similarly.
5. Enter all locations where the chemical is produced/stored or used.

STEP 10

Submit The Modified Workplace Chemical List To The Local Fire Chief For Hazardous Chemicals Normally Stored Only In Excess Of Five Hundred (500) Pounds Or 55 Gallons And Compressed Gases In Excess Of Four 239 Pound Normal Capacity Cylinders

Also, submit the name(s) and telephone number(s) of knowledgeable representative(s) of the employer or distributor who can be contacted for further information or in an emergency.

STEP 11

Place One (1) Sign In Accordance With NFPA 704m Series On The Outside Of Any Building Containing Any Hazardous Chemicals Listed Below

1. Class A or B explosive
2. Poison gas (poison A)
3. Water-reactive solid
4. Radioactive material (listed in Table 1 of Federal Department of Transportation (DOT) regulations at 49 CFR 172 and 173
5. Any other hazardous chemical
    a. In excess of 55 gallons of liquid
    b. In excess of 500 pounds of solid
    c. Or a gas which
        i) would exceed the ACGIH Short Term Exposure Limit (STEL) or TOSHA ceiling limit if allowed to occupy a volume of 1.0 cubic meter
        or
        ii) would exceed the ACGIH Threshold Limit Value (TLV) or TOSHA 8-hour Permissible Exposure Limit (PEL) if allowed to occupy a volume of 1.0 cubic meter
        or
        iii) is a flammable gas
        or
        iv) is stored in more than four (4) compressed gas cylinders of 239 pounds nominal capacity

NOTE: Rules and Regulations requires that each sign be comprised of four (4) squares, each measuring seven and one-half (7 1/2) inches per side and arranged to form a square with fifteen (15) inch sides with diagonals horizontal and vertical. See appendix E for additional information. Contact your local fire department for completion of the sign.

STEP 12

READ

Hazard Communication Standard
(29 CFR 1910.1200)

Hazardous Chemical Right-to-Know Law
(T.C.A. 50-3-2001 - 50-3-2019)
TDOL Rule Chapter 0800-1-09

Please Call One of TOSHA's Area Offices If You Have Any Questions

Memphis Office	901-543-7259
Jackson Office	731-423-5640
Nashville Office	615-741-2793
	800-249-8510
Knoxville Office	865-594-6180
Kingsport Office	423-224-2042
Chattanooga	423-634-6424
Consultative Services	800-325-9901

TOSHA believes the information in this presentation to be accurate and delivers this booklet as a community service. As such, it is an academic presentation which cannot apply to every specific fact or situation; nor is it a substitute for any provisions of 29 CFR Part 1910 and/or Part 1926 of the Occupational Safety and Health Standards as adopted by the Tennessee Department of Labor and Workforce Development or of the Occupational Safety and Health Rules of the Tennessee Department of Labor and Workforce Development.

APPENDIX A

Inventory Worksheet

Product Identifier	Hazardous	Non-hazardous

APPENDIX B

Suggested Label/Training Information for Some Chemicals

ASBESTOS*

* may cause cancer of lung and digestive tract, throat and kidney
* may cause asbestosis (scarring of the lungs)
* may cause skin irritation

CARBON MONOXIDE

Overexposure may cause:

* dizziness, nausea or headache
* aggravation of heart and artery diseases
* unconsciousness and death

CAUSTICS AND ACIDS

Overexposure may cause:

* skin irritation and burns
* damage to eyes and blindness
* nasal and respiratory damage
* throat and stomach damage upon ingestion
* chromic acid may cause cancer

COMPRESSED AIR

* vessel rupture may result in a missile reaction
* concentrated streams may cause skin rupture and body damage
* exhausted or suddenly released air can produce noise and traumatic effects

COMPRESSED GASES

* vessel rupture may result in a missile reaction
* concentrated streams may cause skin rupture and body damage
* exhausted or suddenly released air can produce noise and traumatic effects
* overexposure may result in toxic effects specific to each gas
* high concentrations may cause asphyxiation in confined spaces

LEAD*

Overexposure may cause:

* headache
* joint and muscle pain
* abdominal cramping
* anemia
* damage to kidneys and nervous system

SILICA

Overexposure may cause:

* silicosis (scarring of the lungs)
* lung cancer
* cough, wheezing
* impaired breathing

SOLVENTS – HALOGENATED

Overexposure may cause:

* irritation of eyes, nose and throat
* skin irritation/disease
* headache, nausea, dizziness, light-headedness, drowsiness
* permanent nervous system damage
* possible cancer producing
* unconsciousness
* death

SOLVENTS – ORGANIC

Overexposure may cause:

* irritation of eyes, nose, and throat
* skin irritation/disease
* headache, nausea or light-headedness
* nervous system damage
* blood disorders
* permanent eye damage, blindness
* unconsciousness/coma
* sudden collapse
* death

WELDING*

* fumes and gases may cause irritation of the eyes, nose and throat
* fumes and gases may cause chest pain/pulmonary edema
* fumes and gases may cause chronic lung diseases/lung cancer fumes and gases may cause metal fume fever/lead
* poisoning
* polyester and other man-made fibers may melt and cause severe burns if struck by a welding spark
* may result in asphyxiation in confined spaces

WOOD DUST

Overexposure may cause:

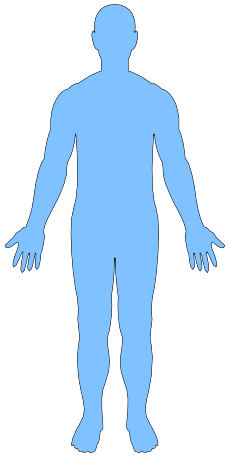
* skin, eye, and lung irritation
* coughing and hoarseness
* dermatitis
* difficulty in breathing
* some dusts cause cancer
* fire hazard
* (all effects are aggravated by smoking)

*Substance Specific Standards

These chemicals have specific labeling and training requirements promulgated under separate substance specific rulemaking efforts. See the requirements in the appropriate section of the standards for additional specific label and training requirements that must be met.

APPENDIX C

Bodily Effects of Chemicals



Dizziness, Light Headedness, Headache, Drowsiness

Irritation to Eyes, Nose, Throat, Lungs

Dermatitis, Burns

Sick to Stomach, Nausea, Vomiting

Fever
Unconsciousness
Death

Short Term (Immediate)

Damage to:

Eyes	Skin	Birth Defects
Skin	Sensitization	Reproductive Effects
Lungs		
Heart		
Blood		
Nerves	Cancer	
Muscles	Death	
Kidneys		
Other Organs		
Bones		

Long Term

APPENDIX D

WORKPLACE CHEMICAL LIST FORM

EMPLOYER NAME_____

MAILING ADDRESS_____

WORKPLACE LOCATION_____
(Not P.O. Box)

_____

IDENTIFICATION_____
(If any)

COUNTY _____

TYPE OF BUSINESS_____

_____

FEDERAL EMPLOYER'S IDENTIFICATION NUMBER

		—							

PRIMARY SIC CODE

NO. OF EMPLOYEES

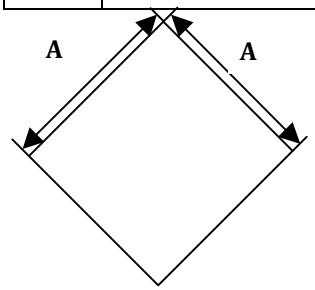
CHEMICAL/ COMPONENT NAME	CHEMICAL ABSTRACTS SERVICES (CAS) NO.	PRODUCT OR TRADE NAME(S) (LABEL IDENTITY)	WORK AREA WHERE CHEMICAL IS NORMALLY USED OR STORED

CHEMICAL/ COMPONENT NAME	CHEMICAL ABSTRACTS SERVICES (CAS) NO.	PRODUCT OR TRADE NAME(S) (LABEL IDENTITY)	WORK AREA WHERE CHEMICAL IS NORMALLY USED OR STORED

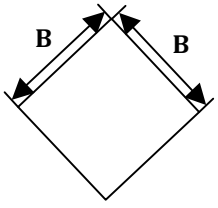
APPENDIX E

NFPA 704M INFORMATION

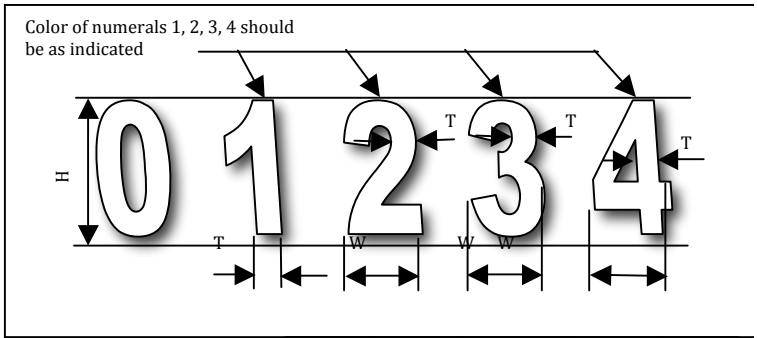
Identification of Health Hazard Color Code: Blue		Identification of Flammability Color Code: RED		Identification of Reactivity (Stability) Color Code: YELLOW	
Signal	**Type of Possible Injury**	**Susceptibility of Materials to Burning**		**Susceptibility to Release of Energy**	
		Signal		**Signal**	
4	Materials that on very short exposure could cause death or major residual injury	4	Materials that will rapidly or completely vaporize at atmospheric pressure and normal ambient temperature, or that are readily dispersed in air and that will burn readily.	4	Materials that in themselves are readily capable of detonation or of explosive decomposition or reaction at normal temperatures and pressures.
3	Materials that on short exposure could cause serious temporary or residual injury.	3	Liquids and solids that can be ignited under almost all ambient temperature conditions.	3	Materials that in themselves are capable of detonation or explosive decomposition or reaction but require a strong initiating source or which must be heated under confinement before initiation or which react explosively with water.
2	Materials that on intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury.	2	Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur.	2	Materials that readily undergo violent chemical change at elevated temperatures and pressures or which react violently with water or which may form explosive mixtures with water.
1	Materials that on exposure would cause irritation but only minor residual injury.	1	Materials that must be preheated before ignition can occur.	1	Materials that in themselves are normally stable, but which can become unstable at elevated temperatures and pressures.
0	Materials that on exposure under fire conditions would offer no hazard beyond that of ordinary combustible material.	0	Materials that will not burn.	0	Materials that in themselves are normally stable, even under fire exposure conditions, and which are not reactive with water.



When painted (use same dimensions for sign or placard)



When made from adhesive-backed plastic (one for each numeral, three necessary for each complete signal)



Minimum Dimensions of White Background for Signals (White Background is Optional)

Size of Signals H	W	T	A	B
1	0.7	5/32	2½	1¼
2	1.4	5/16	5	2½
3	2.1	15/32	7½	3¾

APPENDIX F

HEALTH HAZARD

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

On all container labels:
Frame must be red
Hazard symbol must be black
Background must be white

ACUTE TOXICITY (POISON)

FLAMMABLE

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

FLAME OVER CIRCLE

- **Oxidizers**

CORR0SION

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

GAS CYLINDER

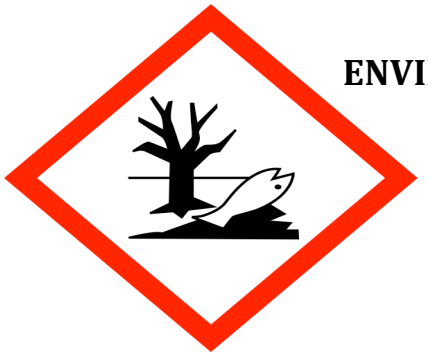
- **Gases Under Pressure**

EXPLODING BOMB

- **Explosives**
- **Self-Reactives**
- **Organic Peroxides**

EXCLAMATION MARK

- **Irritant (skin and eye)**
- **Skin Sensitizer**
- **Acute Toxicity-low**
- **Narcotic Effects**
- **Respiratory Tract Irritant**
- **Hazardous to Ozone Layer (-non-mandatory)**



ENVIRONMENTAL (NON-MANDATORY)

- **Aquatic Toxicity**