

PART "J"

Rules and Regulations Relating to Labeling in the Use, Handling and Storage of Substances Harmful to the Health and Safety of Employees

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Index

	SECTION	PAGE		
Section I. SCOPE AND DEFINITIONS				
Rule 1. Scope	1	221		
Rule 2. Definitions	1	221		
(a) Container	1	221		
(b) Poison	1	221		
(c) Flammable Liquid	1	221		
(d) Mixture	1	221		
(e) Corrosive-Physiological	1	221		
(f) Dust	1	221		
(g) Fume	1	222		
(h) Mist	1	222		
(i) Gas	1	222		
(j) Vapor	1	222		
(k) Irritant—Physiological	1	222		
Section II. CONTAINERS REQUIRED TO BE LABELED				
Rule 1. Requirements	2	222		
Section III. GENERAL DIRECTIONS OF LABELING PROCEDURE				
Rule 1. Preparation of Warning Labels				
(a) Each Chemical a Distinct Problem	3	222		
(b) Statements in Understood Terms	3	222		
(c) Precautionary Information	3	222		
(d) Labels for Different Products	3	222		
(e) Subject Matter	3	222		
(f) Inclusion of Word "POISON"	3	223		
(g) Label in Conspicuous Place	3	223		
(h) Small Packages within a Larger Package	3	223		
Section IV. INFORMATION TO BE INCLUDED ON WARNING LABELS				
Rule 1. Basis of Information	4	223		
(a) Name of Product	4	223		
(b) Signal Word	4	223		
(c) Statement of Hazards	4	223		
(d) Precautionary Measures	4	224		
(e) Instructions in Case of Contact or Exposure	4	224		
Section V. CONTAINER HANDLING AND STORAGE				
Rule 1. General Precautions	5	224		
(a) Metal Drum Handling and Storage (for liquids and semi-liquids)	5	225		
(b) Glass Carboy Handling and Storage	5	225		
(c) Wooden Barrel Handling and Storage (for liquids and semi-liquids)	5	225		
(d) Cylinder Handling and Storage	5	225		
Section VI. GUIDE TABLE FOR SELECTION OF PRECAUTIONARY STATEMENTS ON WARNING LABELS			6	225

PART "J"

RULES AND REGULATIONS

RELATING TO LABELING

IN THE USE, HANDLING AND STORAGE

OF

SUBSTANCES HARMFUL TO THE HEALTH AND SAFETY

OF EMPLOYEES

Section 1. SCOPE AND DEFINITIONS

RULE 1. SCOPE

These rules and regulations shall apply to all containers of substances known to constitute a health, poison, fire, or explosion hazard, to insure proper labeling of the containers with regard to use, handling, and storage, in order to reasonably safeguard employees working with such substances.

RULE 2. DEFINITIONS

Except as otherwise provided herein, the following definitions shall apply.

(a) *Container*. Container shall mean an individual package that is a bag, box, barrel, glass bottle, can, carboy, cylinder or drum employed to receive, store, or dispense a harmful substance.

(b) *Poison*. Poisons are substances, liquids or solids (including pastes and semi-solids), which are known to be so toxic to man as to afford a hazard to health, or which in the absence of adequate data on human toxicity, are considered to be toxic according to recognized medical and toxicological tests.

(c) *Flammable Liquid*. Any liquid which gives off flammable vapors (as determined by flash point from Tagliabue's closed cup tester, A.S.T.M. Procedure D 56-36) at or below a temperature of 70° F.

(d) *Mixture*. A physical commingling of two or more substances which may or may not bear a fixed proportion to one another and which have not reacted chemically with one another.

(e) *Corrosive*—Physiological. An agent which in contact with living tissue will cause more or less severe destruction of tissue by chemical action. As used in warning labeling, the term "corrosive" refers to action on living tissue and should not be confused with action on inanimate surfaces such as metals, glass or wood.

(f) *Dust*. Solid particles generated by handling, crushing, grinding, rapid impact, detonation and decrepitation of organic or inorganic materials such as rock, ore, metal, coal, wood, grain, etc. A dust does not tend to flocculate except under electrostatic forces; it does not diffuse in air but settles under the influences of gravity.

(g) *Fume*. Solid particles generated by condensation from the gaseous state, generally after volatilization from molten metals, etc., and often accompanied by a chemical reaction such as oxidation. A fume flocculates and sometimes coalesces.

(h) *Mist*. Suspended liquid droplets generated by condensation from the gaseous to the liquid state or by breaking up a liquid into a dispersed state, such as by splashing, foaming, and atomizing.

(i) *Gas*. A normally formless fluid which occupies the space or enclosure and which can be changed to the liquid or solid state by the effect of increased pressure or decreased temperature or both.

(j) *Vapor*. The gaseous form of a substance which is normally in the solid or liquid state.

(k) *Irritant*—Physiological. An agent which in contact with living tissue will induce either immediately or after prolonged or repeated contact, a more or less severe local tissue reaction not leading directly to destruction of tissue.

Section II. CONTAINERS REQUIRED TO BE LABELED

RULE 1. REQUIREMENTS

All containers holding substances known to constitute a health, poison, fire or explosion hazard shall be labeled in accordance with the hazards detrimental to the health and safety of employees.

Section III. GENERAL DIRECTIONS OF LABELING PROCEDURE

RULE 1. PREPARATION OF WARNING LABELS

In preparing warning labels, the following general principles shall govern:

(a) *Each Chemical a Distinct Problem*. Each chemical product presents a distinct problem and must be treated individually in the light of its own characteristics. Products composed of two or more substances may have properties that vary in kind or degree from those of the individual components, and warning label shall be based upon the properties of the finished mixture. Impurities may contribute hazardous properties and shall not be overlooked.

(b) *Statements in Understood Terms*. All statements on warning labels shall be brief, accurate, and expressed in simple, easily understood terms.

(c) *Precautionary Information*. Precautionary information shall be used only when and to the extent necessary.

(d) *Labels for Different Products*. On labels for different products, uniformity in language shall be used to indicate the same hazards and same degree of hazard.

(e) *Subject Matter*. The following subject matter shall be considered for inclusion on a warning label:

1. Name of Product;
2. Signal word designating degree of hazard—"DANGER", "WARNING", or "CAUTION";
3. Affirmative statements of hazards;
4. Precautionary measures covering actions to be followed or avoided;
5. Instructions in case of contact or exposure, where advisable;
6. Instructions for handling and storage of containers.

(f) *Inclusion of word "POISON".* The inclusion of the word "POISON" and the skull and crossbones on a label shall be limited to those cases where the product is a poison according to the definition or where such use is prescribed by law. When used, this legend shall be in addition to the other label warning and shall not take the place of the signal words, DANGER, WARNING, and CAUTION, which are designed to show the relative degrees of hazard.

(g) *Label in Conspicuous Place.* Warning statements shall be located prominently on the label and shall be printed in easily legible type which is in contrast by typography, layout, or color with other printed matter on the label. The label shall be affixed firmly to and in a conspicuous place on the container.

(h) *Small Packages within a Larger Package.* When one or more packages bearing "DANGER" warning labels are incorporated in a common container, the common or outer container shall be labeled by the signal word "DANGER" followed by the word that indicates the most significant hazard, such as "DANGER-POISON", "DANGER-FLAMMABLE", etc.

Section IV. INFORMATION TO BE INCLUDED ON WARNING LABELS

RULE 1. INFORMATION TO BE INCLUDED ON WARNING LABELS SHALL BE BASED ON THE FOLLOWING:

(a) *Name of Product.* A non-descriptive code designation or trade name shall not be used as the only identification of a hazardous substance. If the complete chemical name is not shown, the label shall at least clearly state the type of substance, e.g., "corrosive acid", "lead compound".

(b) *Signal Word.* This word is intended to draw attention to the presence of hazard, and to indicate the degree of severity. The signal words are in the order of diminishing severity of hazard:

1. "DANGER"
2. "WARNING"
3. "CAUTION"

Degree of severity can be expressed only in relative terms. "DANGER" is the strongest of the three words and shall be used for those products presenting the most serious hazards. "CAUTION" is required for those compounds presenting the least serious hazards. "WARNING" is intermediate between "DANGER" and "CAUTION".

(c) *Statement of Hazards.* This statement shall give notice of the hazards that are present in connection with the customary or reasonable anticipated handling or use of the product. Examples are:

"CAUSES BURNS"

"VAPOR EXTREMELY HAZARDOUS"

Many chemical products will present more than one type of hazard, in which case appropriate statements for each significant type shall be included on the label. While any compound may be hazardous if improperly used, it is impractical to cover every possible contingency on a label. In some instances where a mild caution is indicated, the statement of hazards may be omitted

PART J, Sec. 4, Rule 1 (d)

and adequate information provided by the signal word "CAUTION" followed by the statement of precautionary measures.

(d) *Precautionary Measures.* These instructions are intended to supplement the statement of hazards by briefly setting forth measures to be taken to avoid injury or damage from stated hazards. Examples are:

"KEEP AWAY FROM HEAT AND OPEN FLAME"

"AVOID BREATHING DUST"

Precautionary measures may be included for less serious hazards not considered of sufficient importance to require inclusion in the statement of hazards. In some instances, the omission of a precautionary statement may be justified, where the measure to be followed is obvious from the statement of hazard. For example, "Do not take internally" is unnecessary when the statement of hazard contains the words, "May be fatal if swallowed."

(e) *Instructions in Case of Contact or Exposure.* The primary purpose of a warning label is to prevent injury or damage. Instructions in case of contact or exposure shall be included in those instances where the results of contact or exposure are severe and immediate treatment is highly desirable, and where simple remedial measures may be taken safely by non-professional persons before medical assistance is available. Instructions shall be limited to recognized first aid procedures based on simple methods and commonly available materials. Instructions for strictly medical treatment shall be omitted except when specifically required by law. Because of the serious and lasting effects that may result from eye injuries, a recommendation to get medical attention shall accompany any specific instructions directed to treatment of the eyes. In certain instances simple remedial measures such as washing or removal of clothing may be included where they will serve to avoid serious injury following contact or exposure.

All precautionary information shall appear on the label as a unit and shall be printed in the order given above. Relative prominence shall be given the individual statements. Relative prominence may be achieved in a number of ways such as by variation in type size, color, or layout of the printed material. Products will be encountered that present hazards varying in kind or degree from those listed.

Appropriate statements of hazards, precautionary measures and instructions in case of contact or exposure shall be prepared on the basis of the properties of the product, following the pattern and general phraseology of the table in Section V. Parenthetical words in the table express variations in kind or degree and are to be used where applicable.

Section V. CONTAINER HANDLING AND STORAGE

RULE 1.

Precautionary statements must be used either as separate labels or in combination with the warning labels attached to the container whenever their use is required for safe handling and storage. Care must always be exercised in handling and storing containers of hazardous substances. The general pre-

cautions listed below shall be used as a guide in labeling for special handling and storing certain classes of containers. Applicable phrases may be selected from these statements.

(a) *Metal Drum Handling and Storage* (for liquids and semi-liquids)

Keep plug up to prevent leakage.

Keep drum out of sun and away from heat.

Relieve internal pressure when received and at least weekly thereafter by slowly loosening plug. Retighten immediately.

Never use pressure to empty.

Keep lights, fire, and sparks away from drum openings.

Drum must not be washed out or used for other purposes.

Replace plug after each withdrawal and return with empty drum.

In case of spillage, flush with plenty of water.

(b) *Glass Carboy Handling and Storage*

Before moving carboy be sure closure is securely fastened.

Loosen closure carefully.

Keep out of sun and away from heat.

Never use pressure to empty.

Completely drain carboy before returning.

In case of spillage, flush with plenty of water.

(c) *Wooden Barrel Handling and Storage* (for liquids and semi-liquids)

Keep out of sun and away from heat.

Store with bilge bung up.

Never use pressure to empty.

Drain completely.

Keep barrel moist—shrinkage may cause leaks.

In case of spillage, flush with plenty of water.

(d) *Cylinder Handling and Storage*

Keep away from heat.

Do not store in sunlight.

Never drop cylinders.

Be sure connections are tight.

I.C.C. Regulations prohibit refilling cylinder without permission of owner.

Have airline respirator or self-contained oxygen respirator available for emergency.

Section VI. GUIDE TABLE FOR SELECTION OF PRECAUTIONARY STATEMENTS ON WARNING LABELS

RULE 1.

The table which follows shall be used as a guide in the selection of precautionary statements on warning labels. However, the warning labels for products, chemicals and substances shall include appropriate combinations of pertinent statements.

CLASS OF HAZARD

STATEMENTS OF HAZARD

Selection to be based on actual hazard and degree of hazard

I. Flammable liquids (Flash points are determined by the Tagliabue closed cup method) A. Flash point 70 degrees F. or below	Flammable
II. Oxidizing Agents	Strong Oxidant Contact with Combustible Material May Cause Fire
III. Materials Giving Vapors Rapidly Toxic or Extremely Irritating on Exposure for a Short Time or to Low Concentrations	Vapor (Extremely) Hazardous Hazardous Liquid and Vapor (Pressure) Vapor Poisonous if Inhaled Vapor May be Fatal if Inhaled Note: Poison* should be included if the product definition of "poison" or is required by law.
IV. Materials Giving Vapors Hazardous from Prolonged or Repeated Exposures or Exposure to High Concentrations	Vapor Harmful Causes Irritation of Eyes, Nose, and Throat
V. Gases and Vapors Physiologically Inert	Gas (Vapor) Reduces Oxygen Available for Breathing Releases Heavy Gas (Vapor) which May Cause Suffocation
VI. Materials in Dust Form Hazardous from Inhalation or Contact	Hazardous (Harmful) Dust Harmful if Inhaled Causes Irritation of Skin, Nose, and Throat
VII. Skin Irritants—Corrosive	Causes Severe Burns Causes Burns May Cause Burns
VIII. Materials Causing Skin Irritation after Prolonged or Repeated Contact	Causes Skin Irritation May Cause Skin Irritation
IX. Materials Toxic Through Skin Absorption	Hazardous Solid (Liquid) Rapidly Absorbed through Skin Absorbed through Skin Note: Poison* should be included if the product definition of "poison" or is required by law.
X. Materials Toxic if Swallowed	Poisonous if Swallowed May be Fatal if Swallowed Harmful if Swallowed Note: Poison* (See No. III and IX.)

*Poison with Skull and Crossbones

to be based on actual hazards of use
free of hazard

CONTACT OR EXPOSURE

Selection to be based on necessity of pro-
action in order to avoid serious effects.

away from heat (sparks) and open flame.
container closed (and away from heat).
with adequate ventilation.

separately (away) from and avoid con-
with combustible materials.
contamination of clothing as it becomes
ously flammable when dry.
container closed (and away from heat).
contact with skin and eyes.

do not breathe vapor.
do not get in eyes, on skin, on clothing.
only with adequate ventilation.
container closed (and away from heat).
air line respirator or self-contained oxy-
respirator available for emergency.

only with adequate ventilation.
(prolonged or repeated) breathing (of)
contact with skin, eyes and clothing.
container closed (and away from heat).

with adequate ventilation.
container closed.
do not enter storage areas unless adequately
ventilated.

do not breathe dust.
do not breathe dust.
thoroughly before eating or smoking.
exposure with skin, eyes, and clothing.

do not get in eyes, on skin, on clothing.
contact with skin, eyes, and clothing.
exposure to (concentrated) vapor.

(prolonged or repeated) contact with
thoroughly before eating or smoking.
exposure to (concentrated) vapor.

do not get in eyes, on skin, on clothing.
contact with skin, eyes, and clothing.

thoroughly before eating or smoking.
thoroughly after handling.
do not breathe dust (vapor).
do not breathe dust (vapor).
do not take internally (only if statement of
does not make this clear).

In case of contact, immediately flush skin
eyes with plenty of water for (at least)
minutes; for eyes, get medical attention. W:
clothing thoroughly at once.
Sweep up spillage at once.
Flush or absorb spillage with

In case of contact, immediately flush skin
eyes with plenty of water for (at least)
minutes; for eyes, get medical attention. F
move and wash clothing before re-use.
Note: If Poison* is used, add antidote sta-
ment as required.

If spilled on clothing, remove and wash b
fore re-use.
In case of exposure to high concentration, i
move to fresh air.

If affected by exposure, remove to fresh ai
If breathing has stopped, apply artificial re-
piration.

In case of contact, immediately flush skin
eyes with plenty of water for (at least) 1
minutes; for eyes, get medical attention. R
move and wash clothing before re-use.

In case of contact, immediately flush skin
eyes with plenty of water for (at least) 1
minutes; for eyes, get medical attention. R
move and wash clothing before re-use.

Note: If Poison* is used, add antidote statement as required.

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*Poison with Skull and Crossbones