

## **Section 1 - Hazard Communication Policy**

## HAZARD COMMUNICATION POLICY

### 1. PURPOSE

To establish the minimum requirements for Clark and Its Affiliates ("Clark") for an effective hazard communication program.

### 2. SCOPE

This procedure applies in its entirety to all Clark operations unless a variance is granted by the Vice President of Safety.

### 3. DEFINITIONS

- (a) Container. Any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, or the like that contains a hazardous chemical.
- (b) Hazard Class. The nature of the physical or health hazards, e.g., flammable solid, carcinogen, oral acute toxicity.
- (c) Hazard Statement. A statement assigned to a hazard class and category that describes the nature of the hazard(s) of a chemical, including, where appropriate, the degree of hazard.
- (d) Hazardous Chemical. Any chemical which is classified as a physical hazard or a health hazard, a simple asphyxiant, combustible dust, pyrophoric gas, or hazard not otherwise classified.
- (e) Label. An appropriate group of written, printed or graphic information elements concerning a hazardous chemical that is affixed to, printed on, or attached to the immediate container of a hazardous chemical, or to the outside packaging.
- (f) Label Elements. The specified pictogram, hazard statement, signal word and precautionary statement for each hazard class and category.
- (g) Pictogram. A composition that may include a symbol plus other graphic elements, such as a border, background pattern, or color, that is intended to convey specific information about the hazards of a chemical.
- (h) Precautionary Statement. A phrase that describes recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemical, or improper storage or handling.
- (i) Product Identifier. The name or number used for a hazardous chemical on a label or in the SDS. It provides a unique means by which the user can identify the chemical. The product identifier used shall permit cross-references to be made among the list of hazardous chemicals required in the written hazard communication program, the label and the SDS.

- (j) Safety Data Sheet (SDS). Written or printed material concerning a hazardous chemical.
- (k) Signal Word. A word used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label. The signal words used in this section are "danger" and "warning." "Danger" is used for the more severe hazards, while "warning" is used for the less severe.

#### **4. RESPONSIBILITIES**

- (a) The Project Superintendent has overall responsibility for establishing and ensuring compliance with this procedure.
- (b) The Project Safety Manager is responsible for implementing and/or monitoring activities associated with this procedure.
- (c) It is the responsibility of all managers and supervisory personnel to enforce this procedure and to ensure that each employee follows it.

#### **5. GENERAL REQUIREMENTS**

- (a) Written Hazard Communication Program.
  - 1. Employers shall develop, implement, and maintain at each workplace, a written hazard communication program which at least describes how the criteria specified in paragraphs 6(a), 6(b), and 6(c) of this section for labeling, safety data sheets, and employee information and training will be met, and which also includes the following:
    - i. A list of the hazardous chemicals known to be present using a product identifier that is referenced on the appropriate safety data sheet; and,
    - ii. The methods the employer will use to inform employees of the hazards of non-routine tasks, and the hazards associated with chemicals contained in unlabeled pipes in their work areas.
  - 2. Multi-employer workplaces. Employers who produce, use, or store hazardous chemicals at a workplace in such a way that the employees of other employer(s) may be exposed shall additionally ensure that the hazard communication programs include the following:
    - i. The methods the employer will use to provide the other employer(s) on-site access to safety data sheets for each hazardous chemical the other employer(s)' employees may be exposed to while working;
    - ii. The methods the employer will use to inform the other employer(s) of any precautionary measures that need to be taken to protect employees during the workplace's normal operating conditions and in foreseeable emergencies; and,

- iii. The methods the employer will use to inform the other employer(s) of the labeling system used in the workplace.

## 6. IMPLEMENTATION

### (a) Labeling.

1. Where the chemical manufacturer or importer is required to label the container, the following shall be provided:
  - i. Product identifier;
  - ii. Signal word;
  - iii. Hazard statement(s);
  - iv. Pictogram;
  - v. Precautionary statement(s);
  - vi. Name, address, and telephone number of the chemical manufacturer or importer.
2. The employer shall ensure that each container of hazardous chemicals in the workplace is labeled.

### (b) Safety Data Sheets (SDS)

1. Employers shall have SDS in the workplace for each hazardous chemical which they use.
2. SDS shall include the following section numbers, headings, and associated information:
  - i. Section 1, Identification;
  - ii. Section 2, Hazard(s) identification;
  - iii. Section 3, Composition/information on ingredients;
  - iv. Section 4, First-aid measures;
  - v. Section 5, Fire-fighting measures;
  - vi. Section 6, Accidental release measures;
  - vii. Section 7, Handling and storage;
  - viii. Section 8, Exposure controls/personal protection;
  - ix. Section 9, Physical and chemical properties;
  - x. Section 10, Stability and reactivity;
  - xi. Section 11, Toxicological information;
  - xii. Section 12, Ecological information;
  - xiii. Section 13, Disposal considerations;
  - xiv. Section 14, Transport information;
  - xv. Section 15, Regulatory information; and
  - xvi. Section 16, Other information, includes the date of preparation of last revision.
3. SDS Binders.
  - i. SDS will be maintained by the Project Safety Manager.

- ii. Copies of SDS may be obtained upon request.

(c) Employee Information and Training.

1. Employers shall provide employees with effective information and training on hazardous chemicals in their work area at the time of their initial assignment, and whenever a new chemical hazard the employees have not previously been trained about is introduced into their work area.
2. Information. Employees shall be informed of:
  - i. The requirements of this section;
  - ii. Any operations in their work area where hazardous chemicals are present; and,
  - iii. The location and availability of the written hazard communication program, including the required list(s) of hazardous chemicals, and safety data sheets.
3. Training. Employee training shall include:
  - i. Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area (such as monitoring conducted by the employer, continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, etc.);
  - ii. The physical, health, simple asphyxiation, combustible dust, and pyrophoric gas hazards, as well as hazards not otherwise classified, of the chemicals in the work area;
  - iii. The measures employees can take to protect themselves from these hazards, including specific procedures the employer has implemented to protect employees from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used; and,
  - iv. The details of the hazard communication program developed by the employer, including an explanation of the labels received on shipped containers and the workplace labeling system used by their employer; the safety data sheet, including the order of information and how employees can obtain and use the appropriate hazard information.

## **7. ATTACHMENTS**









- (a) Attachment 1 - Pictograms
- (b) Attachment 2 - Safety Data Sheets (SDS) Information

## Attachment 1 – Pictograms

Pictograms shall be in the shape of a square set at a point and shall include a black hazard symbol on a white background with a red frame sufficiently wide to be clearly visible. A square red frame set at a point without a hazard symbol is not a pictogram and is not permitted on the label.

One of eight standard hazard symbols shall be used in each pictogram. The eight hazard symbols are depicted in Figure C.1. A pictogram using the exclamation mark symbol is presented in Figure C.2, for the purpose of illustration.

**Figure C.1 – Hazard Symbols and Classes**

Flame  Flammables Self Reactives Pyrophorics Self-heating Emits Flammable Gas Organic Peroxides	Flame Over Circle  Oxidizers	Exclamation Mark  Irritant Dermal Sensitizer Acute Toxicity (harmful) Narcotic Effects Respiratory Tract Irritation	Exploding Bomb  Explosives Self Reactives Organic Peroxides
Corrosion  Corrosives	Gas Cylinder  Gases Under Pressure	Health Hazard  Carcinogen Respiratory Sensitizer Reproductive Toxicity Target Organ Toxicity Mutagenicity Aspiration Toxicity	Skull and Crossbones  Acute Toxicity (severe)

***Figure C.2 – Exclamation Mark Pictogram***



## Attachment 2 - Safety Data Sheets (SDS) Information

A safety data sheet (SDS) shall include the information specified in Table D.1 under the section number and heading indicated for sections 1-11 and 16. If no relevant information is found for any given subheading within a section, the SDS shall clearly indicate that no applicable information is available. Sections 12-15 may be included in the SDS, but are not mandatory.

Table D.1—Minimum Information for an SDS

Heading	Subheading
1. Identification	(a) Product identifier used on the label; (b) Other means of identification; (c) Recommended use of the chemical and restrictions on use; (d) Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party; (e) Emergency phone number.
2. Hazard(s) identification	(a) Classification of the chemical in accordance with paragraph (d) of §1910.1200; (b) Signal word, hazard statement(s), symbol(s) and precautionary statement(s) in accordance with paragraph (f) of §1910.1200. (Hazard symbols may be provided as graphical reproductions in black and white or the name of the symbol, e.g., flame, skull and crossbones); (c) Describe any hazards not otherwise classified that have been identified during the classification process; (d) Where an ingredient with unknown acute toxicity is used in a mixture at a concentration $\geq 1\%$ and the mixture is not classified based on testing of the mixture as a whole, a statement that X% of the mixture consists of ingredient(s) of unknown acute toxicity is required.
3. Composition/information on ingredients	Except as provided for in paragraph (i) of §1910.1200 on trade secrets:  <b>For Substances</b> (a) Chemical name; (b) Common name and synonyms; (c) CAS number and other unique identifiers; (d) Impurities and stabilizing additives which are themselves classified and which contribute to the classification of the substance.  <b>For Mixtures</b> In addition to the information required for substances: (a) The chemical name and concentration (exact percentage) or concentration ranges of all ingredients which are classified as health



	<p>hazards in accordance with paragraph (d) of §1910.1200 and</p> <p>(1) Are present above their cut-off/concentration limits; or</p> <p>(2) Present a health risk below the cut-off/concentration limits.</p> <p>(b) The concentration (exact percentage) shall be specified unless a trade secret claim is made in accordance with paragraph (i) of §1910.1200, when there is batch-to-batch variability in the production of a mixture, or for a group of substantially similar mixtures (See A.0.5.1.2) with similar chemical composition. In these cases, concentration ranges may be used.</p>
	<p><b>For All Chemicals Where a Trade Secret is Claimed</b></p> <p>Where a trade secret is claimed in accordance with paragraph (i) of §1910.1200, a statement that the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret is required.</p>
4. First-aid measures	<p>(a) Description of necessary measures, subdivided according to the different routes of exposure, i.e., inhalation, skin and eye contact, and ingestion;</p> <p>(b) Most important symptoms/effects, acute and delayed.</p> <p>(c) Indication of immediate medical attention and special treatment needed, if necessary.</p>
5. Fire-fighting measures	<p>(a) Suitable (and unsuitable) extinguishing media.</p> <p>(b) Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products).</p> <p>(c) Special protective equipment and precautions for fire-fighters.</p>
6. Accidental release measures	<p>(a) Personal precautions, protective equipment, and emergency procedures.</p> <p>(b) Methods and materials for containment and cleaning up.</p>
7. Handling and storage	<p>(a) Precautions for safe handling.</p> <p>(b) Conditions for safe storage, including any incompatibilities.</p>
8. Exposure controls/personal protection	<p>(a) OSHA permissible exposure limit (PEL), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV), and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the safety data sheet, where available.</p> <p>(b) Appropriate engineering controls.</p> <p>(c) Individual protection measures, such as personal protective equipment.</p>
9. Physical and chemical properties	<p>(a) Appearance (physical state, color, etc.);</p>

- (b) Odor;
- (c) Odor threshold;
- (d) pH;
- (e) Melting point/freezing point;
- (f) Initial boiling point and boiling range;
- (g) Flash point;
- (h) Evaporation rate;
- (i) Flammability (solid, gas);
- (j) Upper/lower flammability or explosive limits;
- (k) Vapor pressure;
- (l) Vapor density;
- (m) Relative density;
- (n) Solubility(ies);
- (o) Partition coefficient: n-octanol/water;
- (p) Auto-ignition temperature;
- (q) Decomposition temperature;
- (r) Viscosity.

#### 10. Stability and reactivity

- (a) Reactivity;
- (b) Chemical stability;
- (c) Possibility of hazardous reactions;
- (d) Conditions to avoid (e.g., static discharge, shock, or vibration);
- (e) Incompatible materials;
- (f) Hazardous decomposition products.

#### 11. Toxicological information

- Description of the various toxicological (health) effects and the available data used to identify those effects, including:
- (a) Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact);
  - (b) Symptoms related to the physical, chemical and toxicological characteristics;
  - (c) Delayed and immediate effects and also chronic effects from short- and long-term exposure;
  - (d) Numerical measures of toxicity (such as acute toxicity estimates).
  - (e) Whether the hazardous chemical is listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition), or by OSHA.

12. Ecological information (Non-mandatory)	<ul style="list-style-type: none"> <li>(a) Ecotoxicity (aquatic and terrestrial, where available);</li> <li>(b) Persistence and degradability;</li> <li>(c) Bioaccumulative potential;</li> <li>(d) Mobility in soil;</li> <li>(e) Other adverse effects (such as hazardous to the ozone layer).</li> </ul>
13. Disposal considerations (Non-mandatory)	Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging.
14. Transport information (Non-mandatory)	<ul style="list-style-type: none"> <li>(a) UN number;</li> <li>(b) UN proper shipping name;</li> <li>(c) Transport hazard class(es);</li> <li>(d) Packing group, if applicable;</li> <li>(e) Environmental hazards (e.g., Marine pollutant (Yes/No));</li> <li>(f) Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code);</li> <li>(g) Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises.</li> </ul>
15. Regulatory information (Non-mandatory)	Safety, health and environmental regulations specific for the product in question.
16. Other information, including date of preparation or last revision	The date of preparation of the SDS or the last change to it.