



# **HAZARD COMMUNICATION PROGRAM**

***CITY OF BURLINGTON***

**REVISION 1 ADOPTED  
ADOPTED BY THE  
CITY OF BURLINGTON  
CENTRAL SAFETY COMMITTEE**

**AUGUST 13, 2002**

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# **HAZARD COMMUNICATION PROGRAM**

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## I. PURPOSE

The purpose of this Hazard Communication Program is to reduce the occurrence of workplace illnesses and injuries caused by hazardous chemicals. This will be accomplished by providing all City of Burlington employees whose jobs expose them to hazardous chemicals the knowledge and means of protecting themselves. This program establishes processes for identifying hazardous chemicals; for evaluating their physical and health hazards; and for communicating those hazards and protective measures to affected employees.

These processes constitute a written program for the employees of the City of Burlington that encourages safe work practices and meets the requirements of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard, 29 CFR 1910.1200.

## II. SCOPE AND AUTHORIZATION

Affected persons shall include, but are not limited to city employees, other employers, vendors/contractors and all visitors who may enter city property. All employees will participate in the hazard communication program. This written program will be available upon request in each establishment for review by any interested employee.

OSHA's definition of an "establishment" is: "...a single physical location where business is conducted or where similar services or industrial operations are performed. For activities where employees do not work at a single physical location, such as construction; transportation; communications, electric, gas and sanitary services and similar operations, the establishment is represented by main or branch offices, terminals, stations, etc. that either supervise such activities or are the base from which personnel carry out these activities." (Reference: OSHA 29 CFR 1904.46)

City of Burlington establishments are those departments and divisions for which a OSHA 300 Log of Injuries and Illnesses is maintained in the safety director's office.

## III. GENERAL REQUIREMENTS

A. Each City of Burlington facility, department or division meeting OSHA's definition of an "establishment" (see II, above.) shall:

1. Appoint at least one person who is responsible for ensuring the establishment's compliance with the Hazard Communication standard;
2. Obtain a Safety Data Sheet (SDS) for all chemicals in the workplace;
3. Identify which chemicals meet the definition of a physical or health hazard;
4. Appoint someone to create and regularly update a list of hazardous chemicals known to be present in the workplace;
5. Label all hazardous chemicals according to the chemical name as it appears in the SDS, and using the NFPA format for chemicals in the original manufacturer's container and the HMIS format for secondary containers and/or where the chemical has been transferred from the original manufacturer's container or where the manufacturer's original container label does not specify appropriate personal protective equipment;
6. Train all affected employees, prior to their exposure and as often as necessary to ensure employee safety, how to recognize hazardous chemicals to which they're exposed, including any chemicals in unlabeled pipes in their work area, and how to protect themselves and others;

7. Develop and utilize effective methods for informing persons other than City of Burlington employees of any hazardous chemicals to which they may be exposed, prior to the actual opportunity for exposure;
8. Perform a documented program audit at least annually to ensure regulatory and City of Burlington policy compliance;
9. Establish, where practical, creation of an Approved Chemical Purchase System that appoints one person through whom every chemical purchase must be pre-approved, allows the establishment to prevent unauthorized chemicals from being brought into the facility, substitutes non-hazardous chemicals for hazardous ones whenever possible, and that reduces in-house inventories of approved chemicals to minimal, anticipated usage quantities.

#### **IV. LIST OF HAZARDOUS CHEMICALS**

- A. All chemicals present in the establishment shall be classified as hazardous or non-hazardous. The establishment manager or his/her designee shall be responsible for chemical classification. This person shall be specifically designated by job title and/or name. Classification of every chemical as to hazardous or non-hazardous shall be accomplished utilizing Appendix B (A Guide for Appropriate Hazard Determination), Appendix C (Physical Hazard Determination Worksheet), Appendix D (Health Hazard Determination Worksheet) and the SDS accompanying the chemical. SDSs for hazardous chemicals shall be maintained separately from non-hazardous SDSs and affected employees shall be trained only for those chemicals classified as hazardous.

All known hazardous chemicals present in the establishment shall be included in a "Chemical Inventory List," (See Appendix E). This list shall include the name of the chemical as it appears on the SDS, the name of the chemical manufacturer, the work area in which the chemicals are used, and the average quantity maintained in inventory. Hazard information for all chemicals shall be obtained from the manufacturer's SDS.

- B. The establishment's list of hazardous chemicals shall be attached to this Hazard Communication Program as an Appendix E and shall include the job title and/or name of the person or persons assigned to create and maintain it and a telephone number where that person may be contacted.
- C. When a new hazardous chemical is received no employee can be exposed to it until the establishment has the SDS in hand and affected employees are trained to safely use the chemical. The new chemical must be added to the hazardous chemical list within 30 days of introduction into the workplace or it must be removed from the workplace. To ensure that the chemical is added in a timely manner, the following procedures shall be followed:
1. In a designated receiving notebook, the chemical must be listed, the date received and the initials or name of the person receiving the chemical.
    - (a) Utilizing the receiving notebook, the person designated to maintain the hazardous chemical list shall update the hazardous chemical inventory at least monthly.

## V. SAFETY DATA SHEETS (SDS's) was SDS's

Safety Data Sheets (SDSs) provide detailed information about a chemical's potential hazardous effects, its physical and chemical characteristics, and recommendations for appropriate protective measures. The Hazard Communication standard requires that a SDS be available for every hazardous chemical that is used, transported or stored in the workplace. SDSs must be written in English (OSHA 29 CFR 1910.1200 Appendix E, 4.B.).

- A. The establishment shall appoint at least one person who shall be responsible for obtaining a SDS for every chemical in the worksite. He/she will review all SDSs to determine whether or not the chemical is hazardous. He/she will collect and maintain SDSs for hazardous chemicals in a physical binder. He/she will ensure that affected employees are trained to safely use the hazardous chemical before they are exposed to it. See Appendix A for the name or job title and contact information for the person assigned to oversee the SDS process.
- B. If a SDS is not received at the time of initial shipment a request will either be made for the SDS to the manufacturer or distributor via telephone and/or in writing or, if the SDS is available online from the manufacturer's computer website, a SDS may be downloaded, printed and used. No employee shall be exposed to a hazardous chemical until a SDS is in hand and the employee has been trained to safely use the chemical. The following procedure shall be used to obtain the appropriate SDS if the SDS was not received at the time of initial shipment and is not available via computer:
  1. The supplier will be contacted by telephone and letter, and all correspondence documented as proof of an effort to comply. A sample letter of request is included in Appendix H of this document.
  2. If a supplier does not respond to this request within 30 days, a second written request for an SDS shall be sent to the supplier. A copy of the second request shall be forwarded to the Department of Labor, Occupational Safety & Health Administration (OSHA). A sample form letter for correspondence with the Department of Labor is included in Appendix H of this document.
- C. Copies of SDSs for all hazardous chemicals to which employees are exposed or are potentially exposed will be kept in an SDS book located in the establishment and all employees of the establishment will be trained to know where the book is located.
- D. SDSs for hazardous chemicals must be readily available to all employees when they are in their work areas during their workshifts. If an SDS is not available, the employee shall contact his/her supervisor.
- E. SDSs for hazardous chemicals will be readily available to employees in each work area using the following format:
  1. A printed version of all current SDSs of hazardous chemicals, as well as a complete and current chemical inventory, will be kept in a SDS book.
  2. The SDS book will be kept in a location within the establishment that is known and available during the workshift to every affected employee.

3. A (duplicate) master copy of the SDS book, identical to the one available to affected employees will be maintained and kept in the supervisor's or director's office, or in the office of the person assigned to maintain the SDSs.

- F. SDSs for non-hazardous chemicals will be maintained in a SDS notebook separately from those of hazardous chemicals. A chemical inventory list for non-hazardous chemicals is not required. SDSs in the notebook shall be filed alphabetically, A to Z, by chemical name as listed on the SDS. The person listed in Appendix A 3. will replace old SDSs with new or revised ones as they are received.

## VI. CONTAINER LABELING

- A. In-plant containers of hazardous chemicals must be labeled, tagged or marked with the identity of the material and appropriate hazard warnings using GHS labeling.

For the purposes of container labeling, the City of Burlington initially adopted the NFPA and the HMIS III hazard identification marking systems. Additionally GHS pictograms as labeled and appropriate Signal words as labeled by the manufacturers shall be on the labeling and shall remain legible.

**GHS** labels should be received from suppliers along with new SDSs

**NFPA** labeled containers of hazardous chemicals arriving from manufacturers will serve to warn firefighters of the hazards to which they may be exposed during an emergency involving fire.

**HMIS III** labels will be placed on secondary containers where a hazardous chemical has been transferred from the original manufacturer's container and will serve to warn employees who handle the chemicals of the hazards to which they may be exposed and to advise them of the appropriate personal protective equipment they should wear.

**GHS** labels will also be added by the user establishment to a manufacturer's container of hazardous chemicals or to secondary containers. Other forms of labeling, i.e. NFPA 704, HMIS can also be used to identify appropriate personal protective equipment.

- B. Containers of stored hazardous chemicals must be labeled, tagged or marked with at least the following information:
  - Identification of the hazardous chemical/identifier;
  - Appropriate Hazard Warnings/Signal Words;
  - Pictograms relating to the product
  - Appropriate personal protective equipment.

- C. The establishment will designate in writing one or more persons by job title and/or name to be responsible for ensuring labeling of in-plant containers.

The establishment will also designate in writing one or more persons by job title and/or name to be responsible for ensuring labeling of containers shipped to or brought into the establishment prior to their use. The same person(s) may be designated to ensure labeling of both in-plant containers and those shipped to or brought into the establishment.

This/these designated person(s) will be responsible for ensuring that labels are maintained as required on containers within the facility and that newly purchased materials are correctly labeled prior to use.

- D. Although OSHA 29 CFR 1910.1200(f)(7) permits a technical exemption concerning labeling of in-house containers, the City of Burlington chooses not to use the exemption. Therefore all portable or secondary containers of hazardous chemicals must be properly labeled.

## **VII. HAZARDOUS NON-ROUTINE TASKS**

- A. Each establishment will create a written list of all hazardous, non-routine task employees would be expected to perform, if any. The list will be incorporated into this Hazard Communication Program as an Appendix to the Program. The establishment will train employees prior to their performing hazardous, non-routine tasks. Training will inform employees of the hazardous chemicals involved and proper precautions to take to reduce or avoid exposure that he/she may encounter during such activity. This training will include specific chemical hazards, protective and safety measures the employee can use and safe work practices the establishment uses to reduce the hazards, including ventilation, respirators, the presence of another employee (buddy systems) and emergency procedures. The person who is responsible for ensuring the establishment's compliance with the Hazard Communication standard and safe work practices will either conduct the training or cause the training to be conducted by a knowledgeable person. Written documentation of the training will be maintained in file.

## **VIII. CHEMICALS IN UNLABELED PIPES**

- A. Work activities may sometimes be performed by employees in areas where hazardous chemicals are transferred through unlabeled pipes. Prior to starting work in these areas, the employee shall contact the supervisor for information and guidance regarding:
- Identification of the chemical in the pipes;
  - Potential hazards of the chemical;
  - Safety precautions to be taken.
- C. Pipes containing hazardous chemicals shall be color coded according to the contents of the pipe, following industry standard ANSI/ASME Z53.1. For a color copy of ANSI-

approved colors and their applications as established by ANSI/ASME Z53.1, the document

C:\Documents and Settings/bfinley/My

Documents\Safety~Burlington\HazCom\ANSI Pipe Marking Standards.doc

is available from the files of the City of Burlington Safety Director.

## **IX. INFORMING OTHER EMPLOYERS**

- A. The City of Burlington and the Hazard Communication Standard requires that all other employers working on city property be informed of any hazardous chemicals to which their employees may be exposed while performing work on behalf of the City of Burlington, as well as protective measures that must be taken to prevent exposure or injury. City of Burlington policy further requires that when other employers are working on city property they must comply with all OSHA standards and requirements, where applicable. It is the responsibility of the City of Burlington establishment manager to ensure that other employers have been provided with information about hazardous chemicals to which their employees may be exposed on a job site and suggested protective precautions for employees. It is also the responsibility of the establishment manager to obtain information about hazardous chemicals used by other employers to which employees of the City of Burlington may be exposed. The establishment manager may delegate this responsibility to specific individuals but retains overall responsibility for ensuring appropriate communication.
- B. Safety Data Sheets will be provided to other employers in the following manner:
1. Prior to allowing other employers to conduct work on behalf of a City of Burlington establishment, it will be the responsibility of the establishment manager or his designee to obtain a copy of that employer's written Hazard Communication Program, as well as proof that his employees have received Hazard Communication training. At this time, the establishment manager or his designee will inform that employer where he may physically access a copy of the establishment's written Hazard Communication Program, as well as copies of the applicable safety data sheets for hazardous chemicals to which his employees may be exposed.
- C. In addition to providing copies of applicable SDS(s), other employers will be informed of precautionary measures necessary to protect their employees who may be exposed to operations performed by the City of Burlington.
- D. It will be the responsibility of the establishment manager or his designee to inform other employers of the NFPA 704 or HMIS III and GHS labeling system used by the City of Burlington, including symbolic and numerical values, as well as any other information needed to understand the labels used for hazardous chemicals to which their employees may be exposed.

## **X. EMPLOYEE TRAINING AND INFORMATION**

- A. General Requirements

The establishment manager or his designee is responsible for ensuring that all affected employees of his / her establishment receive training required by the Hazard Communication Program prior to exposure to potentially hazardous chemicals. He / she will ensure that all program elements specified below are carried out. The training format will be as follows:

1. Classroom instruction in:
  - (a) The requirements of the Hazard Communication Standard to include GHS revision;
  - (b) The details of the Hazard Communication Program, including an explanation of how to use the labeling system(s), Safety Data Sheets, and how employees can obtain and use appropriate hazard information;
  - (c) Task(s) employees will be expected to perform in work areas where hazardous chemicals are present or used, including non-routine tasks;
  - (d) The physical location and availability of the written Hazard Communication Program, including the list of hazardous chemicals in the workplace and their corresponding SDSs;
  - (e) How the employee can recognize the presence or release of hazardous chemicals into the workplace, if applicable;
  - (f) The physical and health hazards associated with the hazardous chemicals in the work area;
  - (g) Specifically what employees can and should do to protect themselves, including special work practices, emergency procedures to follow and what specific personal protective equipment must be worn for each hazard exposure;
  - (h) How to report harmful chemical exposure or injury;
  - (i) Emergency procedures to follow in the event of a release or overexposure.

## B. New Chemicals

1. When a new hazardous chemical is introduced in the establishment, the chemical will be added to the Chemical Inventory List and the corresponding SDS will be placed in the appropriate manual. Additionally, each affected employee in the establishment will be trained regarding the hazards associated with the new chemical(s) prior to his / her exposure. (Appendix A).

## C. New or Transferred Employees

1. Basic Hazcom training is covered during New Employee Orientation, however, all new or transferred employees shall receive training regarding the specific hazardous chemicals in the work area prior to their exposure.

#### D. Documentation of Training

Though OSHA “does not require employers to maintain records of employee training” (29 CFR 1910.1200 Appendix E 4. ¶ 3), the City of Burlington recognizes the potential for severe injuries from hazardous chemicals and chooses to document employee training on the enclosed training roster (Appendix J). It should be completed upon the completion of the training session with a copy forwarded to the Director of Safety.

#### E. Refresher Training

1. Documented refresher training shall be provided to all affected employees on an annual basis in order to consistently assure acceptable safe work practices. Additionally, refresher training must be conducted whenever there has been a change in exposure or job assignment, or when there is reason to believe that an employee did not understand or is not complying with previous training. This refresher training must be documented.

#### F. Other Employers (Contractors)

1. All other employers will be informed of the Hazard Communication Program, including the location of the hazardous chemical inventory list and SDSs for hazardous chemicals in the work area.
2. The establishment manager or his designee is responsible for ensuring that this information has been communicated to all other employers.
3. Other employers shall furnish to the establishment manager or his designee a list of chemicals and corresponding SDS for all chemicals proposed to be brought into the establishment for use. This to allow time for adequate review, this step must be done prior to beginning work.

#### G. Disciplinary Action

Employees failing to follow established safety procedures will be subjected to the progressive discipline process outlined in Sections 2-398, 2-399 and 2-400 of the City’s Personnel Ordinance.

### **XI. PROGRAM AVAILABILITY**

A copy of this program will be made available, upon request, to employees and their representatives. This written program will be available for review by any interested employee, and the establishment manager or his designee will ensure that all employees know where to

view a copy within the assigned work area. The SDS notebook(s) is required to be available during working hours and shall never be “locked” away.

## **XII. AUDITS**

The overall Hazard Communication Program will be audited and reviewed as needed by the Director of Safety or his designee to ensure that any changes during the past year have been incorporated into the facility’s Hazard Communication Program.

# APPENDIX A

## Hazard Communication Program Duties Assigned to DESIGNATED PERSONNEL

Assigned Task	Job Title	Name	Phone Number
1. Identify hazardous chemicals			
2. Maintain updated hazardous chemical inventory list			
3. Maintain SDSs, including replacement of old SDSs with new or revised ones			
4. Labeling of chemical containers			
5. List of non-routine tasks			
6. Training of affected employees			
7. Maintain updated "Designated Personnel" List			

# APPENDIX B

## A guide for appropriate Hazard Determination

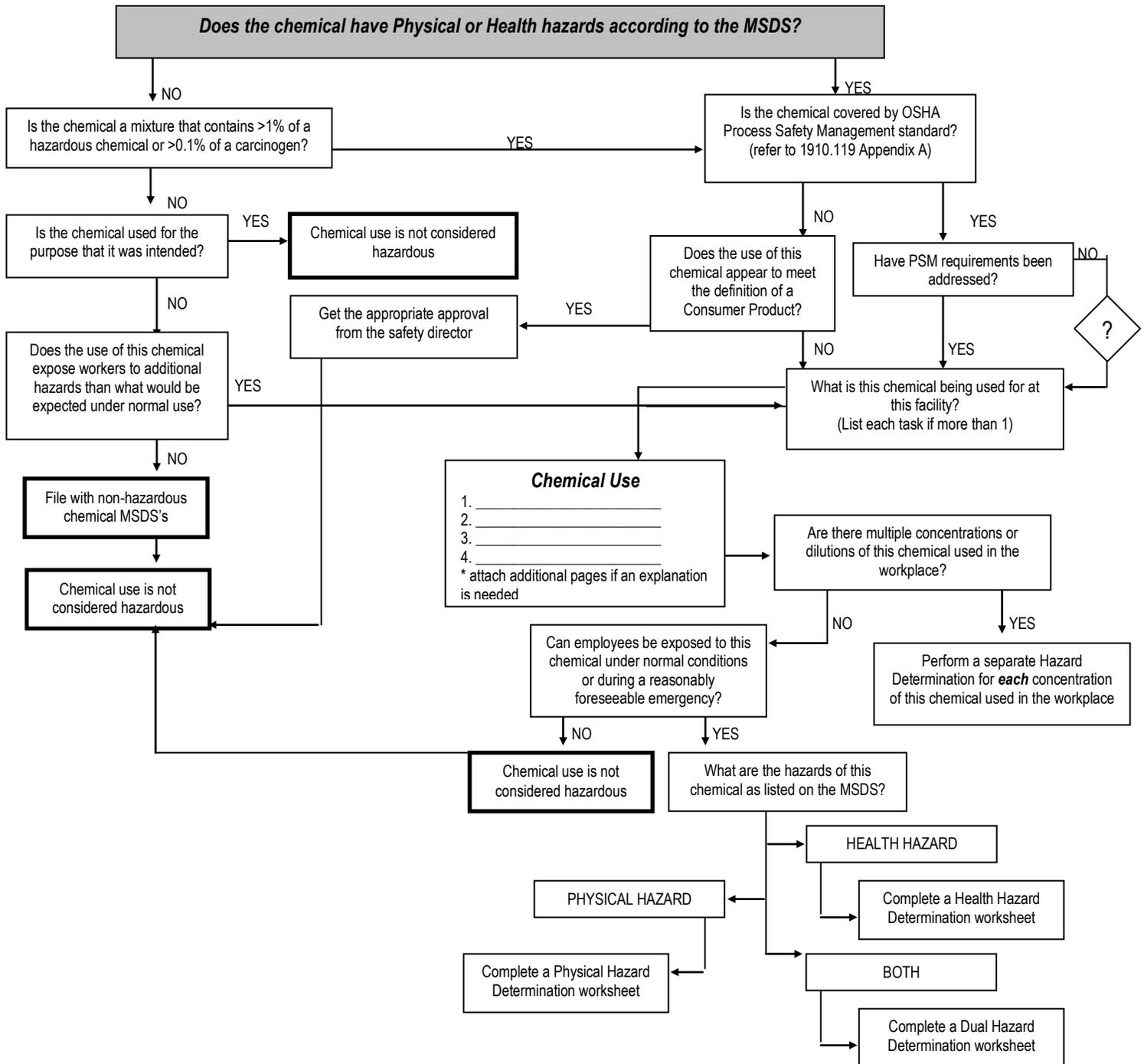
CHEMICAL NAME \_\_\_\_\_

PERSON(S) CONDUCTING THIS REVIEW \_\_\_\_\_

FACILITY \_\_\_\_\_

DATE \_\_\_\_\_

DEPARTMENT \_\_\_\_\_



# APPENDIX C

## PHYSICAL Hazard Determination Worksheet

CHEMICAL NAME \_\_\_\_\_

Page \_\_\_\_ of \_\_\_\_

FACILITY \_\_\_\_\_

PERSON(S) CONDUCTING THIS REVIEW

DATE \_\_\_\_\_

\_\_\_\_\_

DEPARTMENT \_\_\_\_\_

\_\_\_\_\_

1. Will a Health Hazard Determination Worksheet be completed for this chemical?     YES     NO
  
2. What are the physical hazards of this chemical? (Use the physical hazards as provided on the SDS) Check all that apply
 

<input type="checkbox"/> Flammable	<input type="checkbox"/> Combustible	<input type="checkbox"/> Explosive
<input type="checkbox"/> Oxidizer	<input type="checkbox"/> Pyrophoric	<input type="checkbox"/> Reactive
<input type="checkbox"/> Organic peroxide	<input type="checkbox"/> Compressed gas	<input type="checkbox"/> Other: _____
  
3. What is the primary route of exposure of this chemical to employees? (Check the SDS for this information)
 

<input type="checkbox"/> Inhalation (lungs)	<input type="checkbox"/> Adsorption (skins, eyes)	<input type="checkbox"/> Ingestion (mouth)	<input type="checkbox"/> Skin / eye contact
---	---	--	---
  
4. How many employees use this chemical at this facility?
  
5. Could other employees be exposed to this chemical if there were an accident? If yes, how many?
  
6. How much of this chemical is stored / used at this facility? (lbs, gallons, etc.)
  - 6a. Would reducing the amount of chemical stored lessen the hazard to the employee(s)?
  - 6b. Can the amount of this chemical stored be substantially reduced and still meet the requirements of the job?
  
7. Are there special handling or storage considerations for this chemical? (Refer to the SDS)
  - 7a. Is there a maximum temperature for storing this chemical?
  - 7b. Are there restrictions or specifications concerning the type of chemical container? I.e. materials, self-closing, flame arrestors or other safety features?
  - 7c. Do the chemical containers have to be secured or restrained in any way?
  
8. Can this chemical produce hazards if combined with other chemicals located in this facility? (Refer to the SDS. NA if not applicable)
  
9. Will employees come in direct contact with this chemical? (Skin, eye, mouth or lungs)
  - 9a. If YES, what part of the employee's body will come in contact with this chemical? (list all)
  - 9b. Are there engineering or physical controls that can be put into place that can eliminate this exposure?
    - 9b – i. If YES, can these controls be implemented immediately?
    - 9b – ii. If NO, consider using an alternate control method including the use of PPE.
      - 1 Can administrative controls effectively eliminate or reduce employee exposures to this chemical?
      - 2 If NO, will the proper use of PPE eliminate employee exposure?
        - a. If YES, purchase, distribute and train employees
        - b. If **NO**, this chemical cannot be safely used for this application

# APPENDIX D

## HEALTH Hazard Determination Worksheet

CHEMICAL NAME \_\_\_\_\_ DEPARTMENT \_\_\_\_\_ FACILITY \_\_\_\_\_

DATE \_\_\_\_\_ PERSON(S) CONDUCTING THIS REVIEW \_\_\_\_\_

---

1. Will a Physical Hazard Determination Worksheet be completed for this chemical?  YES  NO

2. What are the health hazards of this chemical? (Use the health hazards as provided on the SDS) Check all that apply.

- Carcinogen       Reproductive Toxin       Sensitizer       Irritant       Corrosive  
 Hepatotoxin (liver)       Hematopoetic (blood)       Neurotoxin (nervous system)       Nephrotoxin (kidney)       Damages eyes, lungs or mucous membranes

3. What is the primary means of exposure of this chemical to employees? (Check the SDS for this information.)

- Inhalation (lungs)       Adsorption (skin, eyes)       Ingestion (mouth)       Skin / eye contact

4. Is this chemical listed in Appendix A of the OSHA 1910.119 standard – list of highly hazardous substances?  YES  NO

4a. If this chemical is on the list of highly hazardous substances, does the maximum amount of this chemical stored at this facility exceed the TQ?

5. How often do employees handle this chemical?

- Multiple times every day       Once every day       Once per week or less       Once per month or less       5 - 6 times per year       1 time per year or less

6. What is the HMIS or NFPA Health Hazard Rating for this chemical?      1    2    3    4

7. How much of this chemical is stored / used at this facility? (lbs, gallons, etc.)

7a Will reducing the amount of chemical stored at this facility substantially lessen the hazard(s) to employee(s)?

7b Can the amount of this chemical stored be reduced to safer levels and still meet the requirements of the job?

8. How many employees would be exposed to this chemical if an accidental spill or release occurred that released the entire contents of the single largest container of this chemical?

9. Can this chemical produce health hazards if combined with other chemicals located at this facility? (Refer to the SDS. NA if not applicable. Do not consider fire or explosion hazards as health hazards)      YES  NO

9a If YES, what chemical(s) should be avoided? (Use additional sheets as necessary)

---

10. Is this chemical ever pressurized in such a way that the chemical is subject to forming a mist or vapor?  YES  NO

11. What is the Time Weighted Average of this chemical? (Refer to the SDS. NA if not applicable)

**HEALTH** Hazard Determination Worksheet (continued)

CHEMICAL NAME \_\_\_\_\_ DEPARTMENT \_\_\_\_\_ FACILITY \_\_\_\_\_

12. What is the Permissible Exposure Limit (PEL) or the Short Term Exposure Limit (STEL) of this chemical? (Refer to the SDS. NA if not applicable)

12a Are any employees exposed to concentrations of this chemical that are equal to or greater than the PEL during normal operations?

12b What are the expected concentrations of this chemical in the workplace?

12c Do we (the City of Burlington) have the resources necessary to measure the concentration of this chemical in the workplace?

13. What is the Immediately Dangerous to Life and Health (IDLH) concentration of this chemical? (Refer to the SDS. NA if not applicable)

13a Could an employee be exposed IDLH concentration of this chemical during normal operations?

13b Could an employee be exposed IDLH concentration of this chemical during a foreseeable emergency?

14. Is this chemical ever transferred to smaller containers to be used for purposes other than what the manufacturer intended?  YES  NO

15. How is this chemical disposed of after it has been used?

15a. Will disposal of this waste create additional handling or storage hazard for employees?  YES  NO

**Does this chemical meet the criteria of a workplace health hazard based on the responses to this questionnaire?**

**\* Answer the following questions if this chemical has been determined to be a workplace hazard.**

16. Will employees come in direct contact with this chemical during normal working conditions? (Skin, eye, mouth or lungs)

16a If YES, what part of the employee's body (hands, faces, eyes, etc.) will come in contact with this chemical? (list all that apply)

16b Are there engineering or physical controls that are in place or could be put into place that can eliminate this exposure?

16b – I If YES, can these controls in place already or can they be implemented immediately?

16b – ii If NO, are there other suitable control measures that can be used including the use of PPE?

1 Can administrative controls, such as a standard procedure, effectively eliminate or reduce employee exposures to this chemical?

a. If YES, describe how these controls will eliminate these hazards

2 If NO, will the proper use of PPE eliminate hazardous exposures to this chemical?

a. If YES, purchase and distribute the appropriate PPE and train employees

b. **If NO, this chemical cannot be safely used for this application**

## HEALTH Hazard Determination Worksheet (continued)

### Rating

#### Question #

1.	NA	0	
2.	1 points for each box checked	_____	Total for Question #2 = <input style="width: 30px; height: 20px;" type="checkbox"/>
3.	NA	0	
4.	YES – 3 Points; NO – 1 Points	_____	Total for Question #4 = <input style="width: 30px; height: 20px;" type="checkbox"/>
5.			Total for Question #5 = <input style="width: 30px; height: 20px;" type="checkbox"/>
	a. Multiple times every day – 6 Points	_____	
	b. Once every day – 5 Points	_____	
	c. Once per week or less– 4 Points	_____	
	d. Once per month or less – 3 Points	_____	
	e. 5 - 6 times per year – 2 Points	_____	
	f. 1 time per year or less – 1 Point	_____	
6.	The NFPA or HMIS health rating for this chemical (1, 2, 3 or 4)	_____	Total for Question #6 = <input style="width: 30px; height: 20px;" type="checkbox"/>
7.			Total for Question #7 = <input style="width: 30px; height: 20px;" type="checkbox"/>
	a. <2 pounds or <5 gallons = 1 Point	_____	
	b. 2-10 pounds or 5 – 20 gallons = 2 Points	_____	
	c. 11-100 pounds or 21 – 500 gallons = 3 Points	_____	
	d. 101 – 500 pounds or 501 – 1,000 gallons = 4 Points	_____	
	e. 501 – 1,000 pounds or > 1,001 - 5,000 gallons = 5 Points	_____	
	f. >1,000 pound or > 5,000 gallons = 6 points	_____	
8.			Total for Question #8 = <input style="width: 30px; height: 20px;" type="checkbox"/>
	a. 1 – 3 employees = 2 Points	_____	
	b. 4 – 7 employees = 3 Points	_____	
	c. 8 – 10 employees = 4 Points	_____	
	d. > 10 employees = 5 Points	_____	
9.	YES – 4 Points; NO – 1 Point	_____	Total for Question #9 = <input style="width: 30px; height: 20px;" type="checkbox"/>
10.	YES – 3 Points; NO 1 Point	_____	Total for Question #10 = <input style="width: 30px; height: 20px;" type="checkbox"/>
11.	NA	0	
12.	NA		
13.	NA		
14.	YES = 2 Points; NO = 1 Points	_____	Total for Question #14 = <input style="width: 30px; height: 20px;" type="checkbox"/>
15.	(15a) YES = 2 Points; NO = 1 Point	_____	Total for Question #15 = <input style="width: 30px; height: 20px;" type="checkbox"/>

Chemical Name: \_\_\_\_\_

Multiply the numbers inside the similar shapes by each other. (This will give you 3 numbers) Add those 3 numbers together to get a rating.

Health Hazard Rating: \_\_\_\_\_



# APPENDIX F

## Non-Routine Tasks

Examples of non-routine tasks performed by employees of this establishment:

Task	Hazardous Chemical

# APPENDIX G

## IV. DEFINITIONS

### A. Article

The definition has been amended to permit the release of “very small quantities, e.g., minute or trace amounts” of a hazardous chemical and still qualify as an article provided that a physical or health risk is not posed to the employees (59 F.R. 6146). In evaluating an article, one must consider the health risk which exposure to that article presents. (The term “risk” as opposed to “hazard” is used here, since the hazard is an inherent property of the chemical and exists no matter the quantity of exposure. To be exempted as an article, exposure must not pose a risk to employee health.)

### B. Chemical

The standard’s definition of “chemical” is much broader than that which is commonly used. Thus, steel coils which are cut and processed, castings which are subsequently ground or welded upon, bricks that are dry sawed or drilled, carbide blades which are sharpened are all examples of products which contain chemicals which, if available for exposure, are covered by the Hazard Communication Standard.

### C. Chemical Manufacturer

Based on this definition and that of its related terms, an employer that manufactures, processes, formulates or repackages a hazardous chemical is considered a “chemical manufacturer.” This includes those companies that blend or mix chemicals. Such companies can comply with the standard by transmitting the relevant label/SDS for the components of their mixture (which they, in turn, received in good faith from their suppliers) to their downstream customers. Oil and gas producers are considered chemical manufacturers because they process hazardous chemicals for use or distribution.

### D. Chemical Name

Means the scientific designation of a chemical in accordance with the nomenclature system developed by the International Union of Pure and Applied Chemistry (IUPAC) or the Chemical Abstracts Service (CAS) rules of nomenclature, or a name which will clearly identify the chemical for the purpose of conducting a hazard evaluation.

### E. Combustible Liquid

Means any liquid having a flashpoint at or above 100 deg. F (37.8 deg. C), but below 200 deg. F (93.3 deg. C), except any mixture having components with flashpoints of 200 deg. F (93.3 deg. C), or higher, the total volume of which make up 99 percent or more of the total volume of the mixture.

### F. Commercial Account

Means an arrangement whereby a retail distributor sells hazardous chemicals to an employer, generally in large quantities over time and/or at costs that are below the regular retail price.

### G. Common Name

Means any designation or identification such as code name, code number, trade name,

and brand name or generic name used to identify a chemical other than by its chemical name.

## **7. Compressed Gas**

1. A gas or mixture of gases having, in a container, an absolute pressure exceeding 40 psi at 70 deg. F (21.1 deg. C); or
2. A gas or mixture of gases having, in a container, an absolute pressure exceeding 104 psi at 130 deg. F (54.4 deg. C) regardless of the pressure at 70 deg. F (21.1 deg. C); or
3. A liquid having a vapor pressure exceeding 40 psi at 100 deg. F (37.8 deg. C) as determined by ASTM D-323-72.

## **8. Container**

Means any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, or the like that contains a hazardous chemical. For purposes of this section, pipes or piping systems, and engines, fuel tanks, or other operating systems in a vehicle, are not considered to be containers. This definition includes tank trucks and rail cars. A room or an open area is not to be considered a container and, therefore, a hazardous chemical such as wood dust on the floor of a workplace, or a pile of sand at a construction site, would not have to be labeled. Since only “containers” need to be labeled under the Hazard Communication Standard, if there is no container, there is no requirement to label.

1. Pipes or piping systems, engines, fuel tanks or other operating systems in a vehicle are not considered to be containers. Thus, LP cylinders that serve as the source of fuel used to operate lift trucks, for example, would not have to be labeled once the fuel tank is installed, although the spare LP cylinder(s) in storage must be labeled since they are containers. Even though containers of fuel such as gasoline and LP clearly are within the scope of the Hazard Communication Standard, no requirement exists to label those containers operating the lift truck. The producer still has an obligation to assess the hazards associated with the fuels, including their by-products.
2. Bricks that are palletized and bound by metal bands are considered to be containers that are to be tagged with an appropriate label.
3. The standard requires all containers of hazardous chemicals leaving the workplace to be labeled with the required information. Even very small containers must be tagged or marked in a fashion that fulfills the intent of the standard.

## **9. Distributor**

A distributor who blends, mixes or otherwise changes the composition of a chemical is considered a chemical manufacturer under the Hazard Communication Standard. Employees in these operations are considered to use hazardous chemicals. Under these conditions, the distributor will not be able to claim the sealed container provision in paragraph (b)(4) and will need to meet all applicable provisions of the Hazard Communication Standard (including hazard determinations, SDSs, labeling, training and a written program).

- a. Paragraph 1200(g)(7) distinguishes between a “distributor” and a “retail distributor.” This type of operation makes it difficult to determine, at the point of purchase, whether a customer is an employer who needs a safety data sheet (SDS). The “on-request” system has been permitted to preclude the necessity of determining every customer’s need for an SDS at the time of purchase or of providing an SDS to every customer.

## **10. Employee**

Employees, such as office workers or bank tellers who encounter hazardous chemicals only in non-routine, isolated instances are not covered. For example, an office worker who occasionally changes the toner in a copying machine would not be covered by the standard. However, the provisions of the HCS would cover an employee who operates a copying machine as part of her/his work duties. Training provisions for temporary employees are addressed under h (1).

## **11. Employer**

An employer, who brings hazardous chemicals into the country for use in their own workplace, becomes an importer and is, therefore, responsible for conducting a hazard determination of the chemical, producing the SDS, ensuring appropriate labeling, and all other applicable provisions of the standard.

## **12. Explosive**

Means a chemical that causes a sudden, almost instantaneous release of pressure, gas, and heat when subjected to sudden shock, pressure, or high temperature.

## **13. Exposure**

It is important to note for purposes of chemical manufacturers’ hazard determinations and downstream use by employees, that “exposure” includes any route of entry (such as inhalation, ingestion, skin contact or absorption) and potential exposure, including exposure that could result in the event of a foreseeable emergency.

## **14. Flammable**

Means a chemical that falls into one of the following categories:

1. "Aerosol, flammable" means an aerosol that, when tested by the method described in 16 CFR 1500.45, yields a flame projection exceeding 18 inches at full valve opening, or a flashback (a flame extending back to the valve) at any degree of valve opening;
2. "Gas, flammable" means:
  - (A) A gas that, at ambient temperature and pressure, forms a flammable mixture with air at a concentration of thirteen (13) percent by volume or less; or
  - (B) A gas that, at ambient temperature and pressure, forms a range of flammable mixtures with air wider than twelve (12) percent by volume, regardless of the lower limit;
3. "Liquid, flammable" means any liquid having a flashpoint below 100 deg. F (37.8 deg. C), except any mixture having components with flashpoints of 100 deg. F

(37.8 deg. C) or higher, the total of which make up 99 percent or more of the total volume of the mixture.

4. "Solid, flammable" means a solid, other than a blasting agent or explosive as defined in 1910.109(a), that is liable to cause fire through friction, absorption of moisture, spontaneous chemical change, or retained heat from manufacturing or processing, or which can be ignited readily and when ignited burns so vigorously and persistently as to create a serious hazard. A chemical shall be considered to be a flammable solid if, when tested by the method described in 16 CFR 1500.44, it ignites and burns with a self-sustained flame at a rate greater than one-tenth of an inch per second along its major axis.

## 15. Flashpoint

Means the minimum temperature at which a liquid gives off a vapor in sufficient concentration to ignite when tested as follows:

Tagliabue Closed Tester (See American National Standard Method of Test for Flash Point by Tag Closed Tester, Z11.24-1979 (ASTM D 56-79)) for liquids with a viscosity of less than 45 Saybolt Universal Seconds (SUS) at 100 deg. F (37.8 deg. C), that do not contain suspended solids and do not have a tendency to form a surface film under test; or

Pensky-Martens Closed Tester (see American National Standard Method of Test for Flash Point by Pensky-Martens Closed Tester, Z11.7-1979 (ASTM D 93-79)) for liquids with a viscosity equal to or greater than 45 SUS at 100 deg. F (37.8 deg. C), or that contain suspended solids, or that have a tendency to form a surface film under test; or

Setaflash Closed Tester (see American National Standard Method of Test for Flash Point by Setaflash Closed Tester (ASTM D 3278-78)).

## 16. Foreseeable Emergency

Foreseeable emergency does not include exposures in the event of an accidental fire, but does include equipment failure, rupture of containers, or failure of control equipment that could result in an uncontrolled release.

## 17. Hazardous Chemicals

Hazardous chemicals as defined by the HCS, which are grown, cultivated or harvested (such as cotton, lumber and grain) are covered by the HCS at the first point of processing or manufacture. The first employer meeting the definition of a "chemical manufacturer" will be responsible for performing the hazard determination, developing or obtaining the SDSs, and labeling containers of the hazardous chemicals. For example, saw mills are considered to be the "chemical manufacturer" since they are the first employers who process the product. A sawmill processes timber into lumber thereby creating wood dust, which is a hazardous chemical under the HCS. Grain elevators also meet the definition of a "chemical manufacturer" since they treat, dry and move grain, creating grain dust, a hazardous chemical under the standard.

- a. Based on a manufacturer's hazard determination, if a fire extinguisher is classified as a hazardous chemical, then it would be subject to the HCS labeling requirement. Under the standard, a compressed gas is considered a physical hazard and is, therefore,

covered. Similarly, several extinguishing agents are also considered hazardous chemicals by nature of their associated health hazards.

### **18. Hazard Warning**

The definition has been amended to include target organ effects on labels in order to convey the specific physical and health hazards of a chemical.

### **19. Health Hazard**

Means a chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees. The term "health hazard" includes chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic system, and agents which damage the lungs, skin, eyes, or mucous membranes. Appendix B provides further definitions and explanations of the scope of health hazards covered by this section, and Appendix D describes the criteria to be used to determine whether or not a chemical is to be considered hazardous for purposes of this standard.

### **20. Identity**

Means any chemical or common name which is indicated on the safety data sheet (SDS) for the chemical. The identity used shall permit cross-references to be made among the required list of hazardous chemicals, the label and the SDS.

### **21. Immediate Use**

Means that the hazardous chemical will be under the control of and used only by the person who transfers it from a labeled container and only within the work shift in which it is transferred.

### **22. Importer**

Means the first business with employees within the Customs Territory of the United States which receives hazardous chemicals produced in other countries for the purpose of supplying them to distributors or employers within the United States.

### **23. Label**

Any written, printed or graphic material displayed on or affixed to containers of hazardous chemicals. Not all labels are required or intended to provide hazard warnings.

### **24. Safety Data Sheet**

Written or printed material concerning a hazardous chemical which is prepared in accordance with OSHA standard 1910.1200.

### **25. Mixture**

Means any combination of two or more chemicals if the combination is not, in whole or in part, the result of a chemical reaction.

## **26. Organic Peroxide**

Means an organic compound that contains the bivalent -O-O-structure and which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.

## **27. Oxidizer**

Means a chemical other than a blasting agent or explosive as defined in 1910.109(a), that initiates or promotes combustion in other materials, thereby causing fire either of itself or through the release of oxygen or other gases.

## **28. Physical Hazard**

Means a chemical for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive) or water-reactive.

## **29. Produce**

The definition of "produce" has been expanded and now includes blend, extract, generate and emit in addition to manufacture, process, formulate and repackage. This would include the extraction of naturally occurring substances, such as clay and stone which contain crystalline silica.

### **EE. Pyrophoric**

Means a chemical that will ignite spontaneously in air at a temperature of 130 deg. F (54.4 deg. C) or below.

### **FF. Responsible Party**

Means someone who can provide additional information on the hazardous chemical and appropriate emergency procedures, if necessary.

### **GG. Specific Chemical Identify**

Means the chemical name, Chemical Abstracts Service (CAS) Registry Number, or any other information that reveals the precise chemical designation of the substance.

### **HH. Trade Secret**

Means any confidential formula, pattern, process, device, information or compilation of information that is used in an employer's business, and that gives the employer an opportunity to obtain an advantage over competitors who do not know or use it.

### **II. Unstable (reactive)**

Means a chemical which in the pure state, or as produced or transported, will vigorously polymerize, decompose, condense, or will become self-reactive under conditions of shocks, pressure or temperature.

### **JJ. Use**

Means to package, handle, react, emit, extract, generate as a byproduct, or transfer.

### **KK. Water-Reactive**

Means a chemical that reacts with water to release a gas that is either flammable or presents a health hazard.

**LL. Work Area**

A room or defined area in the workplace where hazardous chemicals are produced or used and where employees are routinely present.

**MM. Workplace**

Means an establishment, job site, or project, at one geographical location containing one or more work areas.

# APPENDIX H

## *First SDS Request*

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

Manufacturer, Distributor or Supplier Name  
Address  
City, State, Zip Code

Re: Request for Safety Data Sheet (SDS)

Dear: \_\_\_\_\_

The City of Burlington, North Carolina purchased (chemical name) on (date). In accordance with the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) we are requesting a Safety Data Sheet (SDS) for this chemical.

Please forward the appropriate SDS to:

City of Burlington  
(Department)  
Address  
City, State and Zip Code  
Attention: \_\_\_\_\_

Your immediate response to this request is appreciated. If you should have any questions or require additional information, please contact us at (336) \_\_\_\_\_.

Sincerely,

Name  
Title  
Department

## Second SDS Request

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

Manufacturer, Distributor or Supplier Name  
Address, City, State, Zip Code

Re: Request for Safety Data Sheet (SDS)

Dear: \_\_\_\_\_

The City of Burlington, North Carolina purchased (chemical name) on (date). On (date) a request was submitted to your office for a Safety Data Sheet (SDS) for this chemical. To date, we have not received a response from your company.

According to the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200), manufacturers, distributors, suppliers, etc. are required to provide hazard information on an SDS and that SDS must be forwarded to downstream employees. To ensure that the City of Burlington is in compliance with OSHA's Hazard Communication Standard, a **second request** for the appropriate SDS is hereby submitted. If a reply is not received within 15 days of this notice, a copy of this letter will be forwarded to the Department of Labor to document the City of Burlington's unsuccessful attempt at obtaining the SDSs.

Please forward the appropriate SDS to:

City of Burlington  
(Department)  
Address, City, State and Zip Code  
Attention: \_\_\_\_\_

Sincerely,

Name  
Title  
Department

# Request for Assistance from OSHA in Obtaining SDS

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

North Carolina Department of Labor  
Occupational Safety & Health Administration  
4 W. Edenton Street,  
Raleigh, NC 27601-1092

Re: Request for Safety Data Sheet (SDS)

Dear: \_\_\_\_\_

The City of Burlington, North Carolina purchased (chemical name) on (date). The manufacturer of this product is (manufacturer's name).

On (date) a request for the Safety Data Sheet (SDS) for this chemical was submitted to (manufacturer's name). On (date) a **second** request was submitted. To date, the City of Burlington has not received a response from (manufacturer). Please find attached a copy of the second request that was submitted.

Your cooperation in assisting the City of Burlington with obtaining the appropriate SDS is greatly appreciated.

Sincerely,

Name  
Title  
Department

# APPENDIX I

## GHS Pictograms –Physical, Health & Environmental Hazards SDS

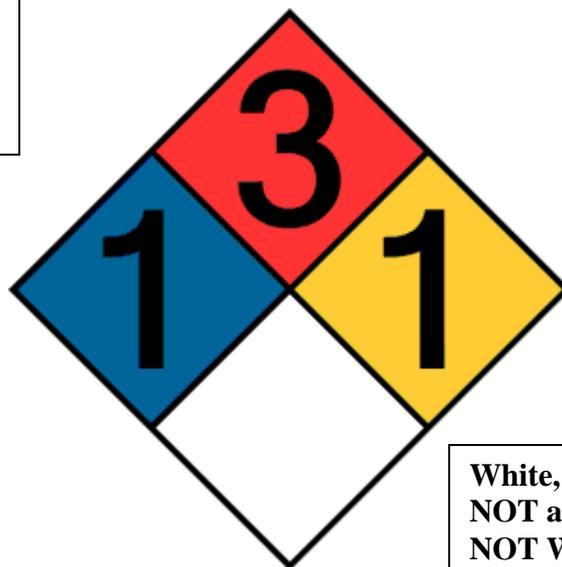
	<b>Expanding bomb</b> (for explosion or reactivity hazards)		<b>Flame</b> (for fire hazards)		<b>Flame over circle</b> (for oxidizing hazards)
	<b>Gas cylinder</b> (for gases under pressure)		<b>Corrosion</b> (for corrosive damage to metals, as well as skin, eyes)		<b>Skull and Crossbones</b> (can cause death or toxicity with short exposure to small amounts)
	<b>Health hazard</b> (may cause or suspected of causing serious health effects)		<b>Exclamation mark</b> (may cause less serious health effects or damage the ozone layer*)		<b>Environment*</b> (may cause damage to the aquatic environment)
	<b>Biohazardous Infectious Materials</b> (for organisms or toxins that can cause diseases in people or animals)				

\* The GHS system also defines an Environmental hazards group. This group (and its classes) was not adopted in WHMIS 2015. However, you may see the environmental classes listed on labels and Safety Data Sheets (SDSs). Including information about environmental hazards is allowed by WHMIS 2015.

## NFPA 704 CHEMICAL LABEL

**Red 3:  
Serious  
Flammability  
Hazard**

**Blue 1:  
Slight Health  
Hazard**



**Yellow 1:  
Slight  
Reactivity  
Hazard**

**White, No Number or Symbol:  
NOT an Oxydyzer  
NOT Water Reactive**

**HMIS III**  
**CHEMICAL LABEL**

<b>Substance Identity</b>	
<input type="radio"/>	<b>HEALTH</b>
<input type="radio"/>	<b>FLAMMABILITY</b>
<input type="radio"/>	<b>PHYSICAL HAZARD</b>
<input type="radio"/>	<b>PERSONAL PROTECTION</b>
<b>Health Hazards</b>	

