

**SUPPORTING STATEMENT FOR  
THE INFORMATION COLLECTION REQUIREMENTS OF  
THE HAZARD COMMUNICATION STANDARD  
(29 CFR PARTS 1910.1200, 1915.1200, 1917.28, 1918.90, 1926.59, and 1928.21)<sup>1</sup>  
(OMB CONTROL NO. 1218-0072 (October 2009))**

**Justification**

- 1. Explain the circumstances that make the collection of information necessary. Identify any legal or administrative requirements that necessitate the collection. Attach a copy of the appropriate section of each statute and regulation mandating or authorizing the collection of information.**

The main objective of the Occupational Safety and Health Act of 1970 (i.e., "The Act") is to "assure so far as possible every working, man and woman in the Nation safe and healthful working conditions and to preserve our human resources" (29 CFR U.S.C.651). To achieve this objective, the Act authorizes "the development and promulgation of occupational safety and health standards" (29 U.S.C.651).

Section 6(b) (7) of the Occupational Safety and Health Act of 1970, 29 U.S.C. 651 et. seq. states that any occupational safety or health standard promulgated by the Secretary of Labor under section 6(b) rulemaking authority "shall prescribe the use of labels or other appropriate forms of warning as are necessary to insure that workers are apprised of all hazards to which they are exposed, relevant symptoms and appropriate emergency treatment, and proper conditions and precautions of safe use of exposure." In promulgating substance-specific rules to address the hazards of a particular chemical, OSHA followed this Congressional directive. However, given the universe of chemicals present in American workplaces (as many as 900,000 hazardous chemical products), and the time-consuming nature of OSHA's rulemaking process, it became clear that little information would be available to workers if this substance-by-substance approach was the only avenue pursued. Workers exposed to chemicals would continue to encounter a myriad of hazards. Many chemicals cause acute injuries or illnesses such as rashes, burns and poisoning, or chronic effects such as cancer or liver damage. Also, chemicals can pose physical hazards to workers by contributing to accidents such as fires and explosions. To prevent such occupational hazards, the Agency addressed the issue of hazard information transmittal on a generic basis.

OSHA's experience, and the Hazard Communication Standard (HCS) rulemaking record, support the view that when workers have access to, and understand, the nature of the chemical hazards to which they are exposed during the course of their employment, they are better able to participate in their employers' protection programs and to take steps to protect themselves. By complying with the HCS, employers have more complete information upon which to base decisions regarding the design and implementation of worker protection programs. Together these actions

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<sup>1</sup>The purpose of this Supporting Statement is to analyze and describe the burden hours and costs associated with provisions of this Standard that contain paperwork requirements; it does not provide information or guidance on how to comply with, or how to enforce, the Standard.

result in more effective protection and the occurrence of fewer illnesses and injuries due to exposure to chemicals.

Items 2 and 12 below describe in detail the specific collections of information contained in the existing HCS Standard.

On September 30, 2009 the Agency published a Notice of Proposed Rulemaking (NPRM) proposing to modify the existing HCS to conform with the United Nations' (UN) Globally Harmonized System of Classification and Labelling of Chemicals. OSHA submitted a separate ICR, addressing those proposed changes to the Office of Management and Budget. The collections of information requirements contained in existing HCS are discussed in this supporting statement.

**2. Indicate how, by whom, and for what purpose the information is to be used. Except for a new collection, indicate the actual use the agency has made of the information received from the current collection.**

The purpose of the Hazard communication collections of information is to ensure that the hazards of all chemicals (produced or imported) are evaluated, and that information concerning their hazards is transmitted to employers and workers. This purpose is accomplished through hazard determinations, labels, material safety data sheets (MSDSs), written hazard communication programs, and training.

#### **Hazard Determination (§ 1910.1200(d))**

Hazard determination requires chemical manufacturers,<sup>2</sup> importers<sup>3</sup> and employers who develop MSDSs to review available scientific evidence concerning the physical and health hazards of the chemicals they produce or import to determine if they are hazardous. Firms that are generating the chemicals are the most likely to have complete information on their hazardous effects. Therefore, those firms are required to evaluate the hazards of the chemicals they produce or import. Hazard determination is critical since specific communication provisions of the Standard such as MSDSs and labels apply only to "hazardous" substances. The employer is not required to keep records of each individual chemical evaluation. Rather, they must establish written procedures indicating the process they follow to evaluate potentially hazardous chemicals. Written procedures ensure consistency of approach, and serve as a check on thoroughness of evaluation (from all relevant sources) for employers and for anyone reviewing the evaluation.

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<sup>2</sup>Chemical Manufacturer means an employer with a workplace where chemical(s) are produced for use or distribution.

<sup>3</sup>Importer means the first business with workers 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.

## **Written Hazard Communication Program (§ 1910.1200(e))**

All employers who have workers exposed to hazardous chemicals<sup>4</sup> must develop, implement and maintain a written hazard communication program. The written hazard communication program must describe how the criteria specified in the following paragraphs are met; paragraphs (f) *Labels and other forms of warning*, (g) *MSDSs*, and (h) *Employee information and training*. Also, the written plan must include a list of the hazardous chemicals known to be present using an identity that is referenced on the appropriate MSDSs, and the methods the employer uses to inform workers of the hazards on non-routine tasks and the hazards associated with chemicals contained in unlabeled pipes in their work areas.

For multi-employer worksites the hazard communication program must also include the following: methods the employer will use to provide other employer(s) on-site access to MSDSs for each hazardous chemical the other employer(s)' workers may be exposed to while working; the methods the employer will use to inform the other employer(s) of any precautionary measures that need to be taken to protect workers during the workplace's normal operating and in foreseeable emergencies; and the methods the employer will use to inform the other employer(s) of the labeling system used in the workplace. Employers may use an existing hazard communication program to meet these requirements provided the plan meets the requirements described in the preceding paragraph.

On request, the employer must make their hazard communication program available to workers, their designated representatives, OSHA compliance officers, and the National Institute for Occupational Safety and Health (NIOSH).

A written program provides a structure upon which to evaluate programs. Employers develop criteria they use in developing their programs, as well as the means used to meet those criteria. The written program serves as a useful reference for workers. Having the program in writing makes it easier to determine if the intent of the Standard is being met. Employers need not update their hazard communication programs as long as they meet the criteria established in paragraph (e) of the Standard. OSHA is not taking a burden for the information and training requirements specified by paragraph (h) of the HCS because these requirements are performance oriented; also, employers provide information and training to workers regarding chemical hazards in the workplace as a usual and customary practice.

## **Labels and MSDSs (§ 1910.1200(f) & (g))**

If chemicals are found to be hazardous then the chemical manufacturer or importer must develop warning labels for containers and send them downstream along with the chemicals. Each container of hazardous chemicals leaving the workplace must be labeled, tagged, or marked with the appropriate information, including the identity of the hazardous chemicals contained therein,

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<sup>4</sup>Hazardous chemical means any chemical which is a physical hazard or a health hazard.

hazard warnings appropriate for worker protection, and the name and address of the chemical manufacturer, importer, or other responsible party.<sup>5</sup>

Employers must ensure that each container of hazardous chemicals in the workplace is labeled, tagged or marked with the following information: (1) Identity of the hazardous chemicals contained therein; and, (2) general information regarding the hazards of the chemicals. Employers may use signs, placards, process sheets, batch tickets, operating procedures, or other such written materials in lieu of affixing labels to individual stationary process containers, as long as the alternative method identifies the containers to which it is applicable and conveys the identity of the hazardous chemicals contained therein; and, general information regarding the hazards of the chemicals. Also, employers are not required to label portable containers into which hazardous chemicals are transferred from labeled containers, and which are intended only for the immediate use of the worker who performs the transfer.

Labels serve as a mechanism to alert supervisors and workers about the presence of chemical hazards in his or her immediate work area, and provide a link to the MSDSs, thus improving the effectiveness of the label.

In addition to labels, chemical manufacturers, importers, or employers preparing the MSDSs are required to develop a comprehensive MSDS for each hazardous chemical they produce or import. Employers must have a MSDS in their workplace for each hazardous chemical which they use. Paragraph (g) of the Standard details the information that must be contained on the MSDS. The MSDSs must be readily accessible during each work shift to workers when they are in their work area(s).

If the chemical manufacturer, importer, or employer producing the MSDS, becomes newly aware of any significant information regarding the hazards of the chemical, or ways to protect against the hazards, this new information must be added to the MSDS within three months. If the chemical is not currently being produced or imported, the chemical manufacturer, importer, or employer producing the MSDS must add the information to the MSDS before the chemical is introduced into the workplace again.

Chemical manufacturers, importers, or employers preparing the MSDSs must ensure that distributors<sup>6</sup> and employers receive appropriate MSDS with their initial shipment of hazardous chemicals, and with first shipment after an MSDS has been updated. If a distributor or employer does not receive an MSDS, the distributor or employer must obtain one from the chemical manufacturer or importer as soon as possible. Chemical manufacturers or importers must provide distributors or employers with MSDSs upon request.

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<sup>5</sup>For solid metals (such as steel beams or metal castings), solid wood, or plastic items that are not exempted as articles due to their downstream use, or shipments of whole grain, the required label may be transmitted to the customer at the time of the initial shipment, and need not be included with subsequent shipments to the same employer unless the information on the label changes.

<sup>6</sup>Distributor means a business, other than a chemical manufacturer or importer, which supplies hazardous chemicals to other distributors or to employers.

Distributors must ensure updated MSDSs are provided to other distributors and employers with their initial shipment and with the first shipment after a MSDS is updated. Distributors must provide the MSDS with the shipped containers or send them to the other distributors or employers prior to or at the time of shipment.

The purpose of MSDSs is to provide detailed information on each hazardous chemical, including its potential hazardous effects, its physical and chemical characteristics, and recommendations for appropriate protective measures. Thus, MSDSs in the workplace provide each worker with information about the hazards of the chemicals, as well as the means to protect themselves. The MSDSs complement the labels by providing more detailed information about the ingredients and hazards, as well as the means to properly handle the chemicals and to prevent the occurrence of adverse health effects.

The information provisions under the HCS reduce the incidence of chemical- source illnesses and injuries in the workplace by modifying the behavior of both employers and workers. Employers, many of whom have not been aware of the potential hazards of the chemicals they purchase to use in their workplaces, are able to use the information provided under the HCS to better design protective programs. Complete information about chemicals may allow an employer to choose a less hazardous product, thus preventing occurrence of dangerous exposures. Accurate information is also needed to properly design engineering controls, select appropriate protective clothing, and choose an effective respirator for exposed workers. Improved understanding of chemical hazards by supervisory personnel results in safer day-to-day handling of hazardous substances, and proper storage and clean up.

Workers provided with the necessary hazard information more fully participate in, and support, the protective measures instituted in their workplaces. Workers who have access to, and understand, the nature of the chemical hazards they are exposed to during the course of their employment are better able to participate in their employers' protective programs and take steps to protect themselves. Together these actions result in more effective worker protection and fewer illnesses and injuries due to occupational exposure.

The information provided under the HCS also enables health and safety professionals to provide better services to exposed workers. Medical surveillance, exposure monitoring, and other such services are enhanced by the ready availability of health and safety information.

Information provided to OSHA under the standard demonstrates that employers are complying with the HCS, thereby ensuring that workers are provided with information as required by the HCS. Eliminating access to this information would significantly impair OSHA efforts to protect the health of workers exposed to hazardous chemicals. Information is also used for compliance purposes.

#### **Trade Secrets (§ 1910.1200(i))**

Chemical manufacturers, importers, or employers who withhold the specific chemical identity, must immediately disclose the chemical identity where a treating physician or nurse determines that a medical emergency exists and the specific identity of a hazardous chemical is necessary

for emergency or first-aid treatment. Chemical manufacturers, importers, or employers generating a MSDS, may request a written statement of need and confidentiality in accordance with paragraphs (i)(3) and (i)(4) of the Standard.

In non-emergency situations, chemical manufacturers, importers, withholding specific chemical identity must disclose the hazardous chemical identity to a health professional providing the medical or other occupational health services to exposed workers, provided the request in writing. The request must describe with reasonable detail one of the items in paragraphs (i)(3)(ii). If the health professional, worker, or designated representative who receives the trade secret information chooses to provide the information to OSHA, they must inform the chemical manufacturer, importer, or employers who prepare MSDSs that they are providing the information to OSHA.

Chemical manufacturers, importers, or employers who prepare MSDSs, may prepare a written denial for disclosure of specific chemical identity. Written denials must contain the information stated in paragraph (i)(7) of the Standard.

**3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses, and the basis for the decision for adopting this means of collection. Also, describe any consideration of using information technology to reduce burdens.**

To the extent practical, OSHA standards minimize burdens on employers, including technical and legal burdens. OSHA is aware that employers have developed a number of options to sort, collect, and store hazard communication information, and that many software programs have been marketed to assist employers in accomplishing these tasks. The Standard allows for electronic access, microfiche, and other alternatives to maintaining paper copies of the MSDSs, so long as no barriers to immediate worker access are created by such options. There are no known technical or legal obstacles to reducing the information collection burden through improved information technology.

Also, OSHA has made both the “Chemical Hazard Communication” (1998 PUB 3084) and “Hazard Communication Guidelines for Compliance” (2000 PUB 3111) brochures available on the Internet. The Technical Link to the Hazard Communication standard includes: Frequently asked questions, an online training program, a Fact Sheet, a Small business training manual and links to global information on chemicals and chemical hazards (ANSI, EPA and International Chemical Safety cards (ICSC’s)). There are also instructions on a written Hazard Communication program.

**4. Describe efforts to identify duplication. Show specifically why any similar information already available cannot be used or modified for use for the purposes described in Item 2 above.**

OSHA has worked with the Environmental Protection Agency (EPA) to identify duplication, and to be consistent where possible. OSHA's statute mandates protection for workers, whereas the EPA standard provides for notification of local authorities. To avoid duplication with HCS, the EPA permits employers to use MSDSs to notify local authorities.

**5. If the collection of information impacts small businesses or other small entities (Item 5 of OMB Form 83-I), describe any methods used to minimize burden.**

Most smaller firms covered by the HCS are users of chemicals, rather than producers. As such, they receive labeled containers and MSDSs from their suppliers, and do not evaluate hazards and prepare such materials themselves. In addition, the requirements of the standard are performance-oriented, allowing employers to tailor their compliance activities to suit the particular work operations in their facilities. This approach minimizes the burden on small businesses.

The private sector has developed a number of services to assist employers to comply with the HCS, such as software programs designed to manage information using personal computers. Such software programs are designed, for example, to generate MSDSs and manage data sheet collections. These programs reduce the burden for both small and large businesses in complying with the rule. A number of trade associations which represent small businesses have developed materials tailored to the particular industries they represent to assist their member companies in complying with the standard. Trade associations provide assistance materials, such as written programs, where the employer need only fill in the blanks to complete the Hazard communication program for the particular facility, and training materials designed for the types of facilities in that industry.

Additionally, the compliance Directive 2-2.38D, Inspection Procedures for the Hazard Communication standard was printed March 20, 1998. This Directive provides a sample Hazard Communication program in Appendix E.

The collection of information does not have a significant economic impact on a substantial number of small businesses or other small entities.

**6. Describe the consequence to Federal program or policy activities if the collection is not conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing burden.**

The information required under the HCS concerning the hazards of chemicals and appropriate protective measures reduce the incidence of chemical-source illnesses and injuries in workers exposed to chemical hazards. Making this information available to workers provides some protection to them in the absence of substance-specific rules; the vast majority of hazardous chemicals to which workers are exposed are not regulated by a substance-specific standard. A reduction in the number of incidents of chemical-source illnesses and injuries in workers exposed to chemical hazards occur from the improved protections implemented by employers because of the HCS, and from workers who understand these measures better and, therefore, will take effective steps to protect themselves.

**7. Explain any special circumstances that would cause an information collection to be conducted in a manner:**

- **requiring respondents to report information to the agency more often than quarterly;**
- **requiring respondents to prepare a written response to a collection of information in fewer than 30 days after receipt of it;**

- **requiring respondents to submit more than an original and two copies of any document;**
- **requiring respondents to retain records, other than health, medical, government contract, grant-in-aid, or tax records for more than three years;**
- **in connection with a statistical survey, that is not designed to produce valid and reliable results that can be generalized to the universe of study;**
- **requiring the use of a statistical data classification that has not been reviewed and approved by OMB;**
- **that includes a pledge of confidentiality that is not supported by authority established in statute or regulation, that is not supported by disclosure and data security policies that are consistent with the pledge, or which unnecessarily impedes sharing of data with other agencies for compatible confidential use; or**
- **requiring respondents to submit proprietary trade secret, or other confidential information unless the agency can demonstrate that it has instituted procedures to protect the information's confidentiality to the extent permitted by law.**

No special circumstances exist that require employers to collect information using the procedures specified by this item. The requirements of the Standard are within the guidelines set forth in 5 CFR 1320.5.

**8. If applicable, provide a copy and identify the data and page number of publication in the Federal Register of the agency's notice, required by 5 CFR 1320.8(d), soliciting comments on the information collection prior to submission to**

**OMB. Summarize public comments received in response to that notice and describe actions taken by the agency in response to these comments. Specifically address comments received on cost and hour burden.**

**Describe efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.**

**Consultation with representatives of those from whom information is to be obtained or those who must compile records should occur at least once every 3 years -- even if the collection of information activity is the same as in prior periods. There may be circumstances that may preclude consultation in a specific situation. These circumstances should be explained.**

As required by the Paperwork Reduction Act of 1995 (44 U.S.C. 3506(c)(2)(A)), OSHA published a notice in the *Federal Register* on August 31, 2009, (74 FR 44876, Docket No. OSHA-2009-0014) requesting public comment on its extension of the information collection requirements contained in the Hazard Communication Standard (HCS). The notice was part of a preclearance consultation program intended to provide those interested parties the opportunity to comment on OSHA's request for an extension by the Office of Management and Budget's (OMB) of the currently approved information collection requirements found in the HCS. The Agency received no comments in response to its notice.

**9. Explain any decision to provide any payment or gift to respondents, other than reenumeration of contractors or grantees.**



The Agency will not provide payments or gifts to the respondents.

**10. Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation, or agency policy.**

The HCS requires that the specific chemical identity of a hazardous chemical be disclosed, but if such information is a valid trade secret, the rule permits chemical producers importers to limit disclosure of this information based on their need and ability to maintain confidentiality (See 29 CFR 1910.1200 paragraph (i)).

In addition to the provisions of this rule, the OSH Act requires the Agency to maintain the confidentiality of trade secret information provided directly to its representatives (29 U.S. C. 664).

**11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private. This justification should include the reasons why the agency considers the questions necessary, the specific uses to be made of the information, the explanation to be given to persons from whom the information is requested, and any steps to be taken to obtain their consent.**

The paperwork requirements specified by § 1910.1200 do not involve sensitive information.

**12. Provide estimates of the hour burden of the collection of information. The statement should:**

- **Indicate the number of respondents, frequency of response, annual hour burden, and an explanation of how the burden was estimated. Unless directed to do so, agencies should not conduct special surveys to obtain information on which to base hour burden estimates. Consultation with a sample (fewer than 10) of potential respondents is desirable. If the hour burden on respondents is expected to vary widely because of differences in activity, size, or complexity, show the range of estimated hour burden, and explain the reasons for the variance. Generally, estimates should not include burden hours for customary and usual business practices.**
- **If this request for approval covers more than one form, provide separate hour burden estimates for each form and aggregate the hour burdens in Item 13 of OMB Form 83-I.**
- **Provide estimates of annualized cost to respondents for the hour burdens for collections of information, identifying and using appropriate wage rate categories. The cost of contracting out or paying outside parties for information collection activities should not be included here. Instead, this cost should be included in Item 14.**

#### A. Summary of Annual Burden

See Attachment A for the summary of annual burden hours and costs.

#### B. Explanation of Method of Estimating the Annual Burden

The estimates of average burden hours for specific activities, and the overall methodology for estimation, were derived from the HCS regulatory impact analysis (RIA). This analysis was prepared by OSHA on the basis of a report by JACA, Inc. The analysis was updated by using more recent data whenever such data were available.

Where more recent data were not available, the analysis used projection methods outlined in the JACA report, including projections of burdens for forty years.

The derivation of the paperwork burden for hazard communication is presented in two parts (Exhibits A and B). Exhibit A represents the basic values and assumptions needed in many calculations, and Exhibit B explains burden hour equations and costs for each component of the HCS. In general, estimated costs were determined by multiplying the appropriate wage rate (adjusted for fringes) by the total burden hours.

OSHA is considering modifying the HCS to make it consistent with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). A number of countries around the world have developed standards requiring transmittal of information to users or handlers of chemicals. While similar to requirements in the United States, the variations result in different labels and MSDSs for the same chemicals, missing or incomplete information on imported chemicals may lead to reduced protections for our own citizens. In addition, the large number of varying requirements around the world may result in potential barriers to trade in chemicals, particularly for small businesses. Thus, a harmonized and consistent approach to chemical-hazard information would have benefits both in terms of protection and trade. For countries that do not have existing systems, and may not have the resources to develop and maintain one, a globally harmonized approach would allow them to provide necessary protections for their citizens while to participate in international trade. OSHA will prepare a new ICR to address this rulemaking effectively.

OSHA is maintaining the previous assumptions for this ICR. During the GHS rulemaking OSHA will be obtaining new data, and revising economic assumptions. This new data will be used to revise this existing ICR in the future.

### **Exhibit A. Basic Values for the Analysis**

Exhibit A-1 shows the basic values used in this analysis. These values were derived as follows:

**Number of affected establishments:** The RIA assumed all manufacturing establishments would be affected by the standard. The estimate of the number of manufacturing establishments is from 1997 County Business Patterns ([www.census.gov/pub/epcd/cbp/view/us97.txt](http://www.census.gov/pub/epcd/cbp/view/us97.txt)). The RIA found that only a fraction of non-manufacturing establishments would be affected. The Agency previously updated the number of non-manufacturing establishments using 1997 County Business Patterns.

**New establishments as a percentage of all establishments (rate of entry):** This analysis uses the rate of business starts from Dun and Bradstreet (1997) to estimate the percentage of new establishments formed each year.

**Number of chemical products:** This analysis used the RIA estimate of the number of chemical products, and projected them to 2005 assuming the 2.8 percent annual growth rate in the total number of chemical products used in the RIA.

**Percentage of new chemical products annually:** Based on the RIA, new chemical products are assumed to be 8 percent of all chemical products.

**Number of chemical products per establishment:** The RIA estimated that the typical manufacturing establishment has 82 hazardous chemicals, and that the typical non-manufacturing establishment has 19 hazardous chemicals.

**Number of Shipped Containers of Hazardous Chemicals:** This analysis relies upon the 1982 estimate in the RIA and a projected annual growth rate of 3 percent to estimate the total number of hazardous chemical containers shipped during the year.

**Number of in-plant containers:** Based on the RIA, the number of containers of hazardous chemicals used entirely in-plant was assumed to be 25 percent of the number of shipped containers of hazardous chemicals.

**Percentage of establishments already in compliance:** The RIA found that 60 percent of all establishments were in compliance with the basic provisions of the HCS, primarily as a result of state laws existing prior to the OSHA standard. Hence, HCS is assumed to account for (1-.6) or 40 percent of the burdens and costs since, in the absence of HCS, 60 percent of the burden would continue as a result of state statute.

### **Compensation Wage Rates**

The Agency determined average wage rates for Hazard Communications using average hourly earnings, including benefits, to represent the cost of worker time. The Agency adopted the mean wage rates from “*May 2008 National Industry-Specific Occupational Employment and Wage Estimates*,” U.S. Department of Labor, Bureau of Labor Statistics <http://stats.bls.gov/home.htm>. Total compensation for these occupational categories includes an adjustment of 29.4 percent (*Employer Costs for Employee Compensation, June 2008*) for fringe benefits; this figure represents the average level of fringe benefits in the private sector. The costs of labor used in this analysis are, therefore, estimates of total hourly compensation. These hourly wages are:

Supervisors	\$62.29
Workers	\$24.01
Clerical/Secretary	\$22.06

## Exhibit A-1

### Basic Values for the Analysis

#### Number of Affected Establishments

Manufacturing	344,341
Non-Manufacturing	6,856,429

#### New Establishments as a percentage of all Establishments

Manufacturing	24,793	7.2%
Non-Manufacturing	870,766	12.7%

#### Workers per Establishment

14.88

#### Number of Chemicals Products

945,244

#### Percentage of New Chemicals Products Annually

8.0%

#### Number of Hazardous Chemicals Products per Establishment

Manufacturing	82
Non-Manufacturing	19

**Number of Shipped Containers of Hazardous Chemicals (2001)** 4,436,369,300

**Number of In-Plant Containers** 1,109,092,325

#### Percentage of Establishments Already in Compliance as a Result of State Standards

60%<sup>7</sup>

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<sup>7</sup>The Agency uses 40% in burden hour and cost equations to reflect that 60% of the establishments already in compliance with State law.

## Exhibit B. Provision by Provision Estimates of Burden

(Burdens and costs shown in the following items 1 through 12 are summarized in Attachment A.)

### 1. Written Hazard Communication Programs (§ 1910.1200(e)) (New Establishments)

Written Hazard Communication Program: All affected establishments must have a written hazard communication program explaining how the establishment meets the criteria of the standard with respect to labeling, material safety data sheets (MSDSs), and worker information and training as discussed under paragraph (e) of the standard. The RIA estimates manufacturing plants take an average of 5 hours (4 professional hours and 1 clerical hour) to develop a written hazard communication program while non-manufacturing facilities take an average of 2.5 hours (2 hours professional and .5 clerical).

To determine the total number of *new* manufacturing and non-manufacturing establishments the agency multiplied the total number of manufacturing and non-manufacturing establishments by the rate of entry.

In addition, since sixty percent of establishments were in compliance prior to the promulgation of the HCS as a result of State Standards, the total number of new establishments was multiplied by 40% to reflect burden hours and costs attributed to the HCS.

#### Number of new establishments affected:

New manufacturing establishments: 344,341 manufacturing establishments x .072 (rate of entry) x 40% = 9,917 affected new manufacturing establishments.

New non-manufacturing establishments: 6,856,429 non-manufacturing establishments x .127 (rate of entry) x 40% = 348,307 affected new non-manufacturing establishments

#### **Burden Hours and Costs:**

##### Manufacturing:

##### **Burden hours:**

9,917 affected new establishments x 4 hours professional = 39,668 hrs.

9,917 affected new establishments x 1 hour clerical = 9,917 hrs.

**Total burden hours** = 49,585 hours

##### **Cost:**

39,668 hours x \$62.29 professional wage rate hour = \$2,470,920

9,917 hours x \$22.06 clerical wage rate = \$218,769

**Total cost = \$2,689,689**

Non-Manufacturing:

**Burden hours:**

348,307 affected new establishments x 2 hours professional = 696,614 hrs

348,307 affected new establishments x .5 clerical = 174,154 hrs

**Total burden hours = 870,768 hours**

**Cost:**

696,614 hours x \$62.29 professional wage rate = \$43,392,086

174,154 hours x \$22.06 clerical wage rate = \$3,841,837

**Total cost: \$47,233,923**

Total Burden Hours and Costs:

	<u>Manufacturing</u>	<u>Non- Manufacturing</u>	<u>TOTAL</u>
<b>Burden hours:</b>	49,585	870,768	920,353
<b>Cost:</b>	\$2,689,689	\$47,233,923	\$49,923,612

**2. Written Hazard Communication Program (§ 1910.1200(e))  
(Existing Establishments)**

OSHA estimates existing manufacturing establishments take 1 hour and non-manufacturing establishments .5 hour to update and maintain their hazard communication programs. Forty percent of the establishments incur burden hours and costs as a result of the HCS.

Number of Existing Establishments Affected:

Existing manufacturing establishments affected: 344,341 manufacturing establishments x 40% = 137,736 affected establishments; then 137,736 affected establishments - 9,917 new manufacturing establishments affected = 127,819 existing establishments affected.

Existing non manufacturing establishments affected: 6,856,429 non-manufacturing establishments x 40% = 2,742,572 affected establishments; then 2,742,572 affected establishments - 348,307 new non manufacturing establishments affected = 2,394,265 existing establishments affected.

Manufacturing:

**Burden hours:** 127,819 existing establishments x 1 hour = 127,819 hours

**Cost:** 127,819 hours x \$62.29 = \$7,961,846

Non-Manufacturing:

**Burden hours:** 2,394,265 establishments x .5 hour = 1,197,133 hours

**Cost:** 1,197,133 hours x \$62.29 = \$74,569,415

Total Burden hours and costs

	<u>Manufacturing</u>	<u>Non- Manufacturing</u>	<u>TOTAL</u>
<b>Burden hours:</b>	127,819	1,197,133	1,324,952
<b>Costs:</b>	\$7,961,846	\$74,569,415	\$82,531,261

**3. Hazard Determination (§ 1910.1200(d))**

Manufacturers, importers, or employers using new chemical products must determine the hazards associated with those products. This determination may be done through a literature review. On average, a professional takes 8 hours to conduct the hazard determination and to develop the necessary labels and MSDSs.

The total number of affected chemical products 378,098 is determined by multiplying the total number of chemical products 945,244 by 40 percent. The percentage of new chemical products annually is 8% of the total affected chemical products which is 30,248.

**Burden hours:** 30,248 new hazardous products x 8 hours = 241,984 hours

**Cost:** 241,984 hours x \$62.29 = \$15,073,183

**4. Sending of MSDSs (§ 1910.1200(g))**

**(Sending MSDSs for new hazardous chemicals to existing establishments)**

Manufacturers, importers, or employers distributing **new** hazardous chemicals or products must send MSDSs to establishments receiving the new hazardous chemical or product. The Regulatory Impact Analysis estimates a manufacturer, importer, or employer generating the MSDS takes .14 clerical hours to distribute a MSDS.

To determine the number of new hazardous chemicals existing establishments receive, OSHA estimates that, on average, each manufacturing establishment has 82 hazardous chemicals and the percentage of new chemical products annually is eight percent; therefore the number of new chemicals per manufacturing establishment averages 6.56 new chemicals. For non-manufacturing establishments there are 19 hazardous chemicals, assuming an eight percent new chemical rate, the number of new chemicals for non-manufacturing establishments is 1.52. OSHA estimates 40 percent of establishments incur burden hours and costs since 60% of establishments were in compliance prior to promulgation of the Federal Hazard Communication Standard.

Manufacturing:

**Burden hours:** 127,819 existing establishments affected x 6.56 new hazardous chemicals x .14 hour = 117,389 hours

**Cost:** 117,389 hours x \$22.06 = \$2,589,601

Non-Manufacturing:

**Burden hours:** 2,394,265 existing establishments affected x 1.52 new chemicals x .14 hour = 509,500 hours

**Cost:** 509,500 hours x \$22.06 = \$11,239,570

Total Burden hours and costs

	<u>Manufacturing</u>	<u>Non- Manufacturing</u>	<u>TOTAL</u>
<b>Burden hours:</b>	117,389	509,500	626,889
<b>Costs:</b>	\$2,589,601	\$11,239,570	\$13,829,171

**5. Sending MSDSs (§ 1910.1200(g))**

**(Sending MSDSs for all hazardous chemicals to new establishments)**

Manufacturers, importers, or employers developing MSDSs, must distribute MSDSs to new establishments for all initial hazardous chemicals and for new chemical products they may receive during the year. The clerical time required to send MSDSs to new establishments is the same as for existing establishments, .14 hour. OSHA recognizes that the time to send an MSDS may be overestimated given that many manufacturers, importers, or employers developing MSDSs can transmit MSDSs electronically. OSHA assumes 40 percent of the establishments incur burden hours and costs as a result of the HCS.

OSHA estimates that the new manufacturing establishments receive an average of 88.56 MSDSs; 82 for purchasing the initial hazardous chemicals, plus 6.56 MSDSs (82 hazards x 8 percent) for the new hazardous chemicals establishments purchase annually. Non-manufacturing establishments receive an estimated 20.52 MSDSs; 19 MSDSs for purchasing initial hazardous chemicals and 1.52 MSDSs for the new chemical hazards they purchase annually.

Manufacturing:

**Burden hours:** 9,917 affected establishments x 88.56 hazardous chemicals x .14 hour = 122,955 hours

**Cost:** 122,955 hours x \$22.06 = \$2,712,387

Non-Manufacturing:

**Burden hours:** 348,307 affected establishments x 20.52 hazardous chemicals x .14 hour = 1,000,616 hours

**Cost:** 1,000,616 hours x \$22.06 = \$22,073,589



Total Burden hours and costs:

	<u>Manufacturing</u>	<u>Non- Manufacturing</u>	<u>TOTAL</u>
<b>Burden hours:</b>	122,955	1,000,616	1,123,571
<b>Costs:</b>	\$2,712,387	\$22,073,589	\$24,784,976

**6. Obtaining & Maintaining MSDSs (§ 1910.1200(g))  
(Existing Establishments)**

All existing establishments that have hazardous chemicals must maintain MSDSs, and may need to obtain MSDSs. Smaller establishments or establishments with fewer chemicals spend less time to obtain and maintain MSDSs, while larger companies, companies with a greater number of chemicals, and construction companies having to keep MSDSs at various job sites take a greater amount of time obtaining and maintaining MSDSs. To account for this variance in time, OSHA estimates an average of 1 hour of clerical time per establishment is needed to obtain and maintain MSDSs. OSHA assumes 40 percent of the establishments incur burden hours and costs as a result of the HCS.

Manufacturing:

<b>Burden hours:</b>	127,819 existing establishments affected x 1 hour = 127,819 hours
<b>Cost:</b>	127,819 hours x \$22.06 = \$2,819,687

Non-Manufacturing:

<b>Burden hours:</b>	2,394,265 existing establishments affected x 1 hour = 2,394,265 hours
<b>Cost:</b>	2,394,265 hours x \$22.06 = \$52,817,486

Total Burden hours and costs:

	<u>Manufacturing</u>	<u>Non-Manufacturing</u>	<u>TOTAL</u>
<b>Burden hours:</b>	127,819	2,394,265	2,522,084
<b>Costs:</b>	\$2,819,687	\$52,817,486	\$55,637,173

**7. Obtaining & Maintaining MSDS (§ 1910.1200(g))  
(New Establishments)**

All new establishments receive and maintain MSDSs for hazardous chemicals at their locations. On occasion new establishments may need to obtain MSDSs. A clerical worker spends an average of .14 hour per MSDS to obtain and maintain the MSDSs. The Agency recognizes that the .14 hour may be an overestimate given numerous employers receive, obtain, and maintain MSDSs electronically.

The number of new manufacturing establishments affected by the HCS is 9,917, and the number of new non-manufacturing establishments affected is 348,307 (see number 1 “Written Hazard Communication Program (New Establishments)).” Item 5 “Sending MSDSs to new establishments” estimates that new manufacturing establishments require a total of 88.56 MSDSs, and non-manufacturing establishments require 20.52 MSDSs. The burden hours are determined by multiplying the number of establishments by the total number of MSDSs per establishment by the time to obtain and maintain MSDSs.

Manufacturing:

**Burden hours:** 9,917 establishments x 88.56 MSDSs x .14 hour = 122,955 hours  
**Cost:** 122,955 hours x \$22.06 = \$2,712,387

Non-Manufacturing:

**Burden hours:** 348,307 establishments x 20.52 MSDSs x .14 hour = 1,000,616 hours  
**Cost:** 1,000,616 hours x \$22.06 = \$22,073,589

Total Burden hours and costs

	<u>Manufacturing</u>	<u>Non- Manufacturing</u>	<u>TOTAL</u>
<b>Burden hours:</b>	122,955	1,000,616	1,123,571
<b>Cost:</b>	\$2,712,387	\$22,073,589	\$24,785,976

**8. Labeling Shipping Containers (§ 1910.1200(f))**

There is no burden for affixing labels to off-site containers because it is usual and customary practice for manufacturers to affix labels to containers being shipped.

**9. Labeling of In-Plant Containers (§ 1910.1200(f)(5))**

Labeling in-plant containers: Employers must ensure that portable containers that are transferred from the workers who filled them to other workers are labeled. The RIA estimated approximately 12 seconds (.0033 hour) of workers time per container. OSHA assumes 40 percent of the containers incur burden hours and costs as a result of the HCS.

**Burden hours:** 1,109,092,325 (# of containers) x 40% x .0033 hours per container = 1,464,002 hours  
**Cost:** 1,464,002 hours x \$24.01 (worker) = \$35,150,688

**10. Access to Trade Secrets (§ 1910.1200(i))**

Burden hours are estimated for employers to respond to requests from workers, their representatives, and health professionals for trade secret information. The Agency estimates an average of 7 situations requiring access to trade secrets per 10,000 workers working in

establishments with hazardous chemicals. OSHA estimates there are 107,147,458 workers<sup>8</sup> covered by the HCS, therefore, the Agency estimates there are 75,003 access requests (107,147,458 workers/10,000 workers x 7 situations ), and that a professional requires 4 hours to respond to each request.

**Burden hours:** 75,003 requests x 4 hours = 300,012 hours  
**Cost:** 300,012 hours x \$62.29 = \$18,687,748

## 11. Employee Access (§ 1910.1200(d)(c) and §1910.1200(e)(4))

OSHA estimates an average of 1.5 requests per establishment for worker access to the written programs and MSDSs. OSHA estimates a clerk takes 10 minutes (.1667 hour) to show the worker the relevant documents and to return them to a file after the worker has examined them. OSHA assumes 40 percent of the establishments (7,200,770 establishments x 40% = 2,880,308 establishments) incur burden hours and costs for providing workers access as a result of the HCS.

**Burden hours:** 2,880,308 establishments x 1.5 requests x .1667 hour = 720,221 hours  
**Cost:** 720,221 hours x \$22.06 = \$15,888,075

## 12. Federal Access

The HCS permits OSHA to access the following records: Hazard determinations, § 1910.1200(d)(6); written hazard communication programs, § 1910.1200 (e)(4); material safety data sheets § 1910.1200(g)(11); and trade secrets § 1910.1200(i)(12).

OSHA estimates employers spend approximately 5 minutes (.08 hour) of professional time to inform the compliance officer about the location of the various records during an inspection. The Agency estimates a total of 100,811<sup>9</sup> inspections are conducted annually by Federal OSHA and State-Plan State delegate agencies.

**Burden hours:** 100,811 inspections x .08 hour = 8,065 hours  
**Cost:** 8,065 hours x \$62.29 = \$502,369

## 13. Provide an estimate of the total annual cost burden to respondents or recordkeepers resulting from the collection of information. (Do not include the cost of any hour burden shown in Items 12 and 14).

- **The cost estimate should be split into two components: (a) a total capital and start-up cost component (annualized over its expected useful life); and (b) a total operation and**

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<sup>8</sup>(344,341 + 6,856,429= 7,200,770 total establishments x 14.88 workers per establishment) = 107,147,458 total workers.

<sup>9</sup>The Agency estimated the number of inspections by determining the inspection rate (1.4%) for all establishments under the jurisdiction of the OSH Act (including both Federal OSHA and approved state-plan agencies), and then multiplied the total number of plants covered by the Standard (7,200,770) by this percentage (i.e., 7,200,770 plants x 1.4% = 100,811).

**maintenance and purchase of services component. The estimates should take into account costs associated with generating, maintaining, and disclosing or providing the information. Include descriptions of methods used to estimate major cost factors including system and technology acquisition, expected useful life of capital equipment, the discount rate(s), and the time period over which costs will be incurred. Capital and start-up costs include, among other items, preparations for collecting information such as purchasing computers and software; monitoring, sampling, drilling and testing equipment; and record storage facilities.**

- **If cost estimates are expected to vary widely, agencies should present ranges of cost burdens and explain the reasons for the variance. The cost of purchasing or contracting out information collection services should be a part of this cost burden estimate. In developing cost burden estimates, agencies may consult with a sample of respondents (fewer than 10), utilize the 60-day pre-OMB submission public comment process and use existing economic or regulatory impact analysis associated with the rulemaking containing the information collection, as appropriate.**
- **Generally, estimates should not include purchases of equipment or services, or portions thereof, made: (1) prior to October 1, 1995, (2) to achieve regulatory compliance with requirements not associated with the information collection, (3) for reasons other than to provide information or keep records for the government, or (4) as part of customary and usual business or private practices.**

The cost to develop and transmit MSDSs varies depending on transmission of MSDSs. Many importers and manufacturers of hazardous chemicals send MSDSs electronically. In these situations, there are no costs to importers and manufactures to transmit the MSDSs downstream to employers, including distributors. Importers and manufacturers also send paper copies of MSDSs with their hazardous chemicals. Many employers copy MSDSs in-house for distribution. Based on the cost of toner and paper; the cost for importers and manufacturers is approximately 7 cents per page (\$.07). To estimate costs for the various production and distribution of MSDSs, OSHA assumes that all MSDSs are transmitted by paper. The cost for MSDSs are determined by totaling the number of MSDSs distributed then multiplying the total by \$.07

Under Item 12, number 4 titled “Sending MSDSs to existing establishments,” OSHA estimates that a total of 838,493 MSDSs<sup>10</sup> are sent to existing manufacturing establishments and 3,639,283 MSDSs<sup>11</sup> are sent to non-manufacturing establishments. Therefore, the total number of MSDSs received by existing manufacturing and non-manufacturing establishments is 4,477,776.

Under Item 12, number 5 titled “Sending MSDSs to new establishments,” OSHA estimates a

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<sup>10</sup>Existing manufacturers receive a total of 838,493 MSDSs (127,819 affected establishments x 6.56 new hazardous substances).

<sup>11</sup>Existing non-manufacturers receive a total of 3,639,283 MSDSs (2,394,265 affected establishments x 1.52 new hazardous substances).

<sup>12</sup>New manufacturers receive a total of 878,250 MSDSs (9,917 establishments x 88.56 MSDSs) and new non-manufacturers receive a total of 7,147,260 MSDSs (348,307 establishments x 20.52 MSDSs).

total of 878,250 MSDS are sent to new manufacturing establishments and 7,147,260 MSDSs are sent to new non-manufacturing establishments.<sup>12</sup> The total number of MSDSs sent to new establishments is 8,025,510 MSDSs. The total number of MSDSs is 12,503,286.

**Cost:** 12,503,286 MSDSs x 2 pages x .07 dollar = \$1,750,460

**14. Provide estimates of annualized cost to the Federal government. Also, provide a description of the method used to estimate cost, which should include quantification of hours, operational expenses (such as equipment, overhead, printing, and support staff), and any other expense that would not have been incurred without this collection of information. Agencies also may aggregate cost estimates from Items 12, 13, and 14 in a single table.**

OSHA estimates that a compliance officer (GS-12, step 5), with an hourly wage rate of \$39.70, spends about five minutes (.08 hour) during an inspection reviewing the documents required by the Standard. For purposes of calculating costs to the Federal government, the Agency assumes compliance officers request access to records required by the HCS during all inspections. Currently, OSHA estimates that approximately 100,811 inspections were conducted by Federal and State-plan States.

OSHA considers other expenses, such as equipment, overhead, and support staff salaries, to be normal operating expenses that would occur without the paperwork requirements specified by the Standards. Therefore, the total cost of these paperwork requirements to the Federal government is:

**Cost:** 100,811 inspections x .08 hour x \$39.70 = \$320,176

**15. Explain the reason for any program changes or adjustments reporting in items.**

The Agency is requesting an adjustment decrease of 625,089 burden hours. In the current ICR, the Agency overestimated the number of “existing” establishments by using the number of “affected” establishments (both “new” and “existing”) rather than just the number of “existing” establishments. “New” establishments have separate burden hours already included in this paperwork package. To correct this overestimation, the Agency subtracted the number of “new” establishments from the number of “affected” establishments which results in the number of “existing” establishments. In summary, the number of existing establishments changed from 2,880,308 to 2,522,084 after removing the number of “new” establishments 358,224.

The Agency is also requesting a cost increase in the amount of \$624,002 from \$1,047,822 to \$1,750,460; this increase was based on the cost of paper and toner used by the affected establishments. While there was a decrease in MSDS from 13,097,770 to 12,503,286, this decrease was affected by an increase in the cost of paper and toner from 4 to 7 cents.

**16. For collection of information whose results will be published, outline plans for tabulation, and publication. Address any complex analytical techniques that will be used. Provide the time**

scheduled for the entire project, including beginning and ending of the collection of information, completion of report, publication dates, and other actions.

OSHA will not publish the information collected under the Standard.

17. If seeking approval to not display the expiration date for OMB approval of the information, explain the reason that display would be inappropriate.

There are no forms associated with this collection of information on which to display expiration date.

18. Explain each exception to the certification statement in ROCIS.

OSHA is not seeking an exception to the certification statement in item 19.

### ATTACHMENT A Summary of Annual Burden and Costs

Information Collection Requirement	Existing Burden Hours	Requested Burden Hours	Adjustment	Estimated Costs	Responses
1. Written Hazard Communication Program (New Establishments)	920,353	920,353	0	\$49,923,612	358,224
2. Written Hazard Communication Program (Existing Establishments)	1,509,022	1,324,952	-184,070	\$82,531,261	2,522,084
3. Hazard Determination	241,984	241,984	0	\$15,073,183	30,248
4. Sending MSDSs (Existing Establishments)	710,116	626,889	-83,227	\$13,829,171	4,477,776
5. Sending MSDS (New)	1,123,571	1,123,571	0	\$24,784,976	8,025,510
6. Obtaining and Maintaining MSDSs (Existing Establishments)	2,880,308	2,522,084	-358,224	\$55,637,173	2,522,084
7. Obtaining and Maintaining MSDSs (New Establishments)	1,123,571	1,123,571	0	\$24,785,976	8,025,510
8. Labeling Shipped Containers	0	0	0	\$0	\$0
9. Labeling of In-Plant Containers	1,464,002	1,464,002	0	\$35,150,688	443,636,930
10. Access to Trade Secrets	300,012	300,012	0	\$18,687,748	75,003
11. Employee Access	719,789	720,221	482	\$15,888,075	4,320,462
12. Federal Access	8,065	8,065	0	\$502,369	100,811
<b>TOTALS</b>	<b>11,000,793</b>	<b>10,375,704</b>	<b>-625,089</b>	<b>\$336,794,232</b>	<b>474,094,642</b>