



Please print and post at your vessel/ facility for all employees to view

Fleet Memo #28: Hazard Communication Program

TDI-Brooks has completely revised its Hazard Communication Plan to bring it into line with the new requirements of the OSHA HazCom Final Rule published in March 2012.

Some of the most significant changes were:

- Labeling requirements for secondary containers
- Addition of the GHS pictograms for all shipping labels
- Safety Data Sheets will have a standard format (formerly MSDSs)

HazCom Action Items for all TDI vessels and facilities:

- Compile a chemical list of all chemicals on/ in your vessel/ facility—the list may be a comprehensive list or separated by departments/ areas.
- Isolate any unlabeled or unidentified chemicals and notify the First Mate or Facility Manager of their location.
- Ensure there is an SDS binder in an easily accessed area available to all employees at all times.
- Ensure there is an SDS sheet in the SDS binder for all chemicals on your list.
- Print a copy of this memo, the HazCom program and the completed chemical list and place all three in the front of each SDS binder.
- Ensure all employees on your vessel/ in your facility have completed the computer based training for MSDS and Right to Know courses.

Notice of Change to Controlled Documents #143 /25 Apr 2013

Summary of Changes

NOC#	Ch., Sec., SOP	Summary	Revision#
143	SOP-GEN-013B All	HazCom Program completely revised and updated with new GHS requirements	#3

_____ SMM TOC web page updated
 _____ NOC web page updated
 _____ SMM - each section updated
 _____ NOC sent to fleet
 _____ NOC pdf posted on CM

Approvals	Approvals

NOC # 143 SOP-GEN-013B Hazard Communication Program All

Topic: HazCom Program completely revised and updated with new GHS requirements.

Revision #	Section(s)
Revision #3	Complete SOP follows.



Safety Management Manual

SOP GEN-013B Hazard Communication Program

SOP-GEN-013B Hazard Communication Program

- 1.0 [Policy](#)
- 2.0 [Purpose](#)
- 3.0 [Responsibility](#)
- 4.0 [Components of Hazard Communication Program](#)
 - 4.1 [Chemicals List](#)
 - 4.2 [Safety Data Sheets \(SDS\)](#)
 - 4.3 [Labels and Labeling](#)
 - 4.4 [Unidentified Chemical Procedure](#)
 - 4.5 [Information and Employee Training](#)
 - 4.6 [Non-Routine Work or Tasks](#)
 - 4.7 [Informing Contractors](#)
 - 4.8 [Program Maintenance](#)
- 5.0 [Accidental Exposure Procedures](#)

[Appendix A](#)- NFPA Hazard Identification System

[Appendix B](#)- Definitions

[Appendix C](#)- New Global Pictograms

[Appendix D](#)- New SDS Format

Revision/ Review Log

Revision Date	Approved by	Reviewed by	Revision Details/ Proposal Notes
15 May 2007 Revision #1	Dr. Jim Brooks	HSE Manager: Sue McDonald	
02 December 2010 Revision #2	Dr. Jim Brooks Dr. Bernie Bernard	Dr. Jim Brooks Dr. Bernie Bernard	No changes made
25 April 2013 Revision #3	Dr. Jim Brooks Dr. Bernie Bernard	Dr. Jim Brooks Dr. Bernie Bernard Dr. James Howell	Complete program review and revision. New GHS requirements added.



Safety Management Manual

SOP GEN-013B Hazard Communication Program

1.0 Policy

The Occupational Safety & Health Administration (OSHA) was established in 1970 to assure workers a safe and healthful workplace. OSHA created the Hazard Communication Standard to ensure that workers in all industries and workplaces are aware of the chemical hazards to which they are exposed and how to protect themselves from those hazards.

TDI-Brooks International maintains a written Hazard Communication Program in accordance with OSHA's Hazard Communication Standard 29 CFR 1910.1200.

To ensure that information about the dangers of all hazardous chemicals used by TDI-Brooks International is known by all affected employees, the following Hazard Communication Program has been established. Under this program, employees will be informed of the contents of the OSHA Hazard Communications standard, the hazardous properties of chemicals with which they work, safe handling procedures and measures to take to protect themselves from these chemicals.

All shore based facilities and vessels of this company will participate in the Hazard Communication Program. Copies of the Hazard Communication Program are available on the SDS page of the ship web pages and in the front of all SDS binders for review by any employee or their representative.

The TDI-Brooks International Health Safety and Environmental (HSE) Manager is the program coordinator, with overall responsibility for the program, including reviewing and updating this plan as necessary.

2.0 Purpose

OSHA issued a final rule on the HazCom Communication Standard in March 2012 in order to align the existing regulation with the new Globally Harmonized System of Classification and Labeling of Chemicals (GHS). This revised regulation emphasizes an employee's "Right to Understand", and requires all employers to provide information to their employees about the hazardous chemicals to which they are exposed, by means of a hazard communication program, labels and other forms of warning, safety data sheets, and information and training.

3.0 Responsibility

The President and Vice President of TDI-Brooks International are responsible for encouraging all employees to participate in this program and following its guidelines.



Safety Management Manual

SOP GEN-013B Hazard Communication Program

The HSE Manager (or his designee) is responsible for administering this program, maintaining current information, and providing training for vessel and field employees of TDI-Brooks.

Employees shall be responsible for fully participating in this program as it applies to their work areas and work responsibilities. Supervisors shall ensure that employees under their supervision comply with this program.

4.0 Components of Hazard Communication Program

- A list of the hazardous chemicals known to be present in the workplace
- Labels and Labeling of Hazardous Chemicals and Materials Containers
- Safety Data Sheets or SDS's - formerly referred to as Material Safety Data Sheets or MSDS
- Personnel Training and Information
- A written "Hazardous Communication Program"

4.1 Chemicals List

An initial list of all chemicals and materials shall be made for each vessel or facility. The chemical list will be updated as new chemicals are brought into the workplace. A copy of the chemical list will be kept with the SDS's in a public area accessible to all employees.

It will be the responsibility of the persons ordering or purchasing any new chemicals or products to ensure that the chemical list is updated and that an SDS is added to the SDS book. Copies of all chemical lists shall be maintained in the main office.

*** There is no requirement for audits or inventories- just a list of chemicals present. No requirement for specified intervals for review of hazcom program. Training is required at initial employment and if a new chemical hazard is introduced to the area.*

4.2 Safety Data Sheets (SDS)

An SDS will be provided for all chemicals requiring one. The SDSs are available at each facility and on each vessel for all employees to view. The SDS binder is



Safety Management Manual

SOP GEN-013B Hazard Communication Program

in an easily accessible location and on the ship web pages on the Safety Data Sheets page.

If an SDS is provided with received chemicals, it may be added to the SDS binder or replace the previous SDS for that chemical. The person ordering or purchasing new chemicals is responsible for ensuring that the SDS is added to the binder. Most can be found easily with an Internet search. If an SDS cannot be found, inform the HSE Manager so that one may be obtained.

4.3 *Labels and Labeling*

The chemical manufacturer, importer or distributor is required to provide the following information on all shipped containers:

- Product identifier
- Signal word
- Hazard statement(s)
- Pictogram(s)
- Precautionary statement(s)
- Name, address and telephone number of the chemical manufacturer or importer.

The labels may also contain information/ labeling that follows the guidelines established by the National Fire Protection Association (NFPA) Hazard Identification System.

The existing labels on incoming containers shall not be removed or defaced. Should it be necessary to replace or generate a label on the original container of a hazardous chemical or material, the label will contain, at a minimum, the information above.

All hazardous chemicals and materials in the work place must have labels that at a minimum include the following information:

- The chemical name/ product identifier; and
- Words, pictures, symbols or combinations thereof which provide at least general information regarding the physical and health hazards of the chemical.

It is the responsibility of the area supervisor to ensure that all secondary containers – including spray or squirt bottles-- are labeled with at least the minimum information.



Safety Management Manual

SOP GEN-013B Hazard Communication Program

4.4 *Unidentified Chemical Procedure*

While TDI-Brooks has a strict policy regarding the clear labeling of chemicals in any container, you may occasionally discover containers that are unlabeled, or the label can no longer be read and the substance cannot be identified. All unidentifiable substances must be turned in to the Party Chief on board the ship. If a Party Chief is not aboard, the First Mate will be responsible for these items.

Unidentified substances should be isolated and returned to shore for proper disposal at the end of the cruise. In foreign ports, this will need to be arranged through the local agent. At the TDI-Brooks home dock, contact the HSE Manager to arrange for hazardous waste disposal services.

If unidentified chemicals are found at shore-based facilities, the Facility Manager must isolate them and contact the HSE Manager, who will arrange for hazardous waste disposal services.

4.5 *Information and Employee Training*

All personnel shall be informed of and trained on the “Hazardous Communication Program”/”Right to Understand” at the time of assignment and when a new chemical hazard is introduced to their workplace.

The training program will include the following topics:

- Location of written HAZCOM program, SDS, and chemical list
- Where the chemicals are used and stored
- How to detect the presence or release of a hazardous chemical in the work areas (fire, smell, fumes, haze, color, irritation)
- Physical and other hazards associated with the chemicals in the work area
- Information regarding labels and labeling
- Description of SDS and how to read the sections
- The new GHS pictograms and what hazards they represent



Safety Management Manual

SOP GEN-013B Hazard Communication Program

- Steps that can be taken to lessen or prevent exposure to hazardous chemicals or materials; proper storage, labels, Personal Protective Equipment (PPE), warnings, training etc.
- What steps to take in the event of an exposure to a hazardous chemical or material

4.6 *Non-Routine Work or Tasks*

Periodically, employees may be required to perform non-routine work or tasks requiring the use of hazardous chemicals, materials or work in associated hazardous locations. **The supervisor of the workers who will perform the work is responsible for conducting a Job Safety Analysis (JSA)** of the task and ensuring that each impacted employee is provided information concerning the chemicals, materials, or exposure potential of activity. The JSA will examine risks and hazards of the task and provide information concerning:

- Specific hazards that may be associated with the chemical or material
- Protective and other safety measures to be taken
- Measures that will be taken to minimize or prevent hazard exposure including ventilation, respirators, storage, postings, and Personal Protective Equipment (PPE)
- Review of the chemical or material SDS or other applicable technical information
- Review any emergency procedures to be taken

***If the addition of the new chemical is a result of a change in procedures, a Management of Change may be required first.*

4.7 *Informing Contractors*

Aboard vessels, it is the Master's responsibility to provide contractors coming on board with the information below. At the offices and on shore facilities, it is the responsibility of the person who hired the contractor to provide that contractor with the following information:

- Any hazardous chemicals to which contractors may be exposed while on site



Safety Management Manual

SOP GEN-013B Hazard Communication Program

- The location of the safety data sheets
- Location and use of the PPE Matrix, which describes precautions and controls to lessen or prevent possible exposure by use of the appropriate personal protective equipment (PPE).

4.8 *Program Maintenance*

An SDS must be provided for all hazardous chemicals or materials. All area supervisors must ensure that chemicals coming into their areas have an associated SDS on file. If an SDS cannot be located, the supervisor must notify the HSE Manager immediately so that one may be obtained.

5.0 Accidental Exposure Procedures

TDI-Brooks has many procedures in place to prevent accidental exposure to hazardous chemicals. Procedures include proper labeling of chemicals, creation of a PPE Matrix to advise what PPE is required for routine tasks, providing that PPE to all employees, a supervisor conducted Job Safety Analysis of any non-routine task involving new chemicals and training employees on recognizing the chemical hazards in their workplace and how to protect themselves from those hazards.

TDI-Brooks will follow Accidental Exposure Procedures when a worker has been accidentally exposed to a chemical through skin contact, inhalation or ingestion. The primary focus is to provide first aid to the worker and record the incident. If accidental exposure occurs, follow these steps:

- Stop or minimize exposure. Remove contaminated clothing. If inhalation exposure, move the person to a well ventilated area
- Identify the chemical
- Find the first aid measures on the container or SDS and provide first aid if appropriate. (Section 4 on new SDS)
- Notify the supervisor as soon as possible
- Complete the Employee Incident Report Form. Even if there seems to be no harm done, some reactions are delayed and may not show up for hours.

This is not to be confused with Section 6 on the new SDS's, Accidental Release Measures- which are manufacturer's recommendations for containment and cleanup.



Safety Management Manual

SOP GEN-013B Hazard Communication Program

Appendix A

The National Fire Protection Association (NFPA) Hazard Identification System

TDI-Brooks International may use the NFPA Hazard Identification System for hazardous identification labeling purposes. The NFPA has developed a system of indicating the health, flammability and reactivity hazards of chemicals. Additionally, special precaution symbols may also be used when necessary.

The NFPA system was designed for fire fighters and emergency responders and uses a symbol system designed as a diamond-shaped label containing four differently colored squares. A number 0-4 or an abbreviation is added to each square to indicate the hazard severity. The higher number indicates the greater hazard.



Rating Summary

Health-Blue

Number	Hazard Code	Description of Hazards
4	Danger	Can be lethal- even with short exposure
3	Warning	Can cause serious or permanent injury
2	Warning	Can cause temporary incapacitation or residual injury
1	Caution	Can be irritating
0		No unusual hazard



Safety Management Manual

SOP GEN-013B Hazard Communication Program

Flammability- Red

Number	Hazard Code	Description of Hazards
4	Danger	Highly flammable under normal temperatures
3	Warning	Flammable under most temperatures
2	Caution	Flammable at high temperatures
1	Caution	Must be preheated to burn
0		Will not burn

Reactivity-Yellow

Number	Hazard Code	Description of Hazards
4	Danger	Explosive material at room temperature
3	Danger	May be explosive if shocked or exposed to high temperature
2	Warning	Violent chemical change at high temperatures or pressures
1	Caution	Normally stable, less stable under higher temperatures
0	Stable	Stable- not reactive

Special-White

Number	Hazard Code	Description of Hazards
W	Danger	Reacts violently if exposed to water
OXY	Danger	Reacts violently if exposed to oxygen

These are the only abbreviations approved by the NFPA. Other symbols or abbreviations may be used in the white square to denote a special hazard.

The Department of Transportation (DOT) requires transporters to display the NFPA placards on the exterior of their vehicles when carrying hazardous materials above a certain weight. While the individual containers are not required to have an NFPA label, commonly placarded materials found on a vessel would be fuel oil, lube oil, diesel fuel, and compressed gasses such as nitrogen, oxygen and acetylene.



Appendix B- OSHA HazCom Definitions

Definitions:

From 29 CFR 1900.1200(c)

Assistant Secretary means the Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, or designee.

Chemical means any substance, or mixture of substances.

Chemical manufacturer means an employer with a workplace where chemical(s) are produced for use or distribution.

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 that will clearly identify the chemical for the purpose of conducting a hazard classification.

Classification means to identify the relevant data regarding the hazards of a chemical; review those data to ascertain the hazards associated with the chemical; and decide whether the chemical will be classified as hazardous according to the definition of hazardous chemical in this section. In addition, classification for health and physical hazards includes the determination of the degree of hazard, where appropriate, by comparing the data with the criteria for health and physical hazards.

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.

Common name means any designation or identification such as code name, code number, trade name, brand name or generic name used to identify a chemical other than by its chemical name.

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.

Designated representative means any individual or organization to which an employee gives written authorization to exercise such employee's rights under this section. A recognized or certified collective bargaining agent shall be treated automatically as a designated representative without regard to written employee authorization.



Safety Management Manual

SOP GEN-013B Hazard Communication Program

Director means the Director, National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designee.

Distributor means a business, other than a chemical manufacturer or importer, which supplies hazardous chemicals to other distributors or to employers.

Employee means a worker who may be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies. Workers such as office workers or bank tellers who encounter hazardous chemicals only in non-routine, isolated instances are not covered.

Employer means a person engaged in a business where chemicals are either used, distributed, or are produced for use or distribution, including a contractor or subcontractor.

Exposure or exposed means that an employee is subjected in the course of employment to a chemical that is a physical or health hazard, and includes potential (e.g. accidental or possible) exposure. "Subjected" in terms of health hazards includes any route of entry (e.g. inhalation, ingestion, skin contact or absorption.)

Foreseeable emergency means any potential occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment which could result in an uncontrolled release of a hazardous chemical into the workplace.

Hazard category means the division of criteria within each hazard class, e.g., oral acute toxicity and flammable liquids include four hazard categories. These categories compare hazard severity within a hazard class and should not be taken as a comparison of hazard categories more generally.

Hazard class means the nature of the physical or health hazards, e.g., flammable solid, carcinogen, oral acute toxicity.

Hazard not otherwise classified (HNOC) means an adverse physical or health effect identified through evaluation of scientific evidence during the classification process that does not meet the specified criteria for the physical and health hazard classes addressed in this section. This does not extend coverage to adverse physical and health effects for which there is a hazard class addressed in this section, but the effect either falls below the cut-off value/concentration limit of the hazard class or is under a GHS hazard category that has not been adopted by OSHA (e.g., acute toxicity Category 5).



Safety Management Manual

SOP GEN-013B Hazard Communication Program

Hazard statement means a statement assigned to a hazard class and category that describes the nature of the hazard(s) of a chemical, including, where appropriate, the degree of hazard.

Hazardous chemical means any chemical which is classified as a physical hazard or a health hazard, a simple asphyxiant, combustible dust, pyrophoric gas, or hazard not otherwise classified.

Health hazard means a chemical which is classified as posing one of the following hazardous effects: acute toxicity (any route of exposure); skin corrosion or irritation; serious eye damage or eye irritation; respiratory or skin sensitization; germ cell mutagenicity; carcinogenicity; reproductive toxicity; specific target organ toxicity (single or repeated exposure); or aspiration hazard. The criteria for determining whether a chemical is classified as a health hazard are detailed in Appendix A to § 1910.1200—Health Hazard Criteria.

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.

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.

Label means an appropriate group of written, printed or graphic information elements concerning a hazardous chemical that is affixed to, printed on, or attached to the immediate container of a hazardous chemical, or to the outside packaging.

Label elements means the specified pictogram, hazard statement, signal word and precautionary statement for each hazard class and category.

Mixture means a combination or a solution composed of two or more substances in which they do not react.

Physical hazard means a chemical that is classified as posing one of the following hazardous effects: explosive; flammable (gases, aerosols, liquids, or solids); oxidizer (liquid, solid or gas); self-reactive; pyrophoric (liquid or solid); self-heating; organic peroxide; corrosive to metal; gas under pressure; or in contact with water emits flammable gas. See Appendix B to § 1910.1200—Physical Hazard Criteria.

Pictogram means a composition that may include a symbol plus other graphic elements, such as a border, background pattern, or color, that is intended to convey



Safety Management Manual

SOP GEN-013B Hazard Communication Program

specific information about the hazards of a chemical. Eight pictograms are designated under this standard for application to a hazard category.

Precautionary statement means a phrase that describes recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemical or improper storage or handling.

Produce means to manufacture, process, formulate, blend, extract, generate, emit, or repackage.

Product identifier means the name or number used for a hazardous chemical on a label or in the SDS. It provides a unique means by which the user can identify the chemical. The product identifier used shall permit cross-references to be made among the list of hazardous chemicals required in the written hazard communication program, the label and the SDS.

Pyrophoric gas means a chemical in a gaseous state that will ignite spontaneously in air at a temperature of 130 degrees F (54.4 degrees C) or below.

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

Safety data sheet (SDS) means written or printed material concerning a hazardous chemical that is prepared in accordance with paragraph (g) of this section.

Signal word means a word used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label. The signal words used in this section are "danger" and "warning." "Danger" is used for the more severe hazards, while "warning" is used for the less severe.

Simple asphyxiant means a substance or mixture that displaces oxygen in the ambient atmosphere, and can thus cause oxygen deprivation in those who are exposed, leading to unconsciousness and death.

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

Substance means chemical elements and their compounds in the natural state or obtained by any production process, including any additive necessary to preserve the stability of the product and any impurities deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition.



Safety Management Manual

SOP GEN-013B Hazard Communication Program

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. Appendix E to § 1910.1200—Definition of Trade Secret, sets out the criteria to be used in evaluating trade secrets.










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

Work area means a room or defined space in a workplace where hazardous chemicals are produced or used, and where employees are present.

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

Appendix C- HCS Pictograms and Hazards

As of June 1, 2015, the Hazard Communication Standard (HCS) will require pictograms on labels to alert users of the chemical hazards to which they may be exposed. Each pictogram consists of a symbol on a white background framed within a red border and represents a distinct hazard(s). The pictogram on the label is determined by the chemical hazard classification.

<p>Health Hazard</p>  <ul style="list-style-type: none"> • Carcinogen • Mutagenicity • Reproductive Toxicity • Respiratory Sensitizer • Target Organ Toxicity • Aspiration Toxicity 	<p>Flame</p>  <ul style="list-style-type: none"> • Flammables • Pyrophorics • Self-Heating • Emits Flammable Gas • Self-Reactives • Organic Peroxides 	<p>Exclamation Mark</p>  <ul style="list-style-type: none"> • Irritant (skin and eye) • Skin Sensitizer • Acute Toxicity (harmful) • Narcotic Effects • Respiratory Tract Irritant • Hazardous to Ozone Layer (Non-Mandatory)
<p>Gas Cylinder</p>  <ul style="list-style-type: none"> • Gases Under Pressure 	<p>Corrosion</p>  <ul style="list-style-type: none"> • Skin Corrosion/ Burns • Eye Damage • Corrosive to Metals 	<p>Exploding Bomb</p>  <ul style="list-style-type: none"> • Explosives • Self-Reactives • Organic Peroxides
<p>Flame Over Circle</p>  <ul style="list-style-type: none"> • Oxidizers 	<p>Environment (Non-Mandatory)</p>  <ul style="list-style-type: none"> • Aquatic Toxicity 	<p>Skull and Crossbones</p>  <ul style="list-style-type: none"> • Acute Toxicity (fatal or toxic)



Appendix D- New Mandatory Safety Data Sheet Format

The GHS regulations requires that all Safety Data Sheets have a standardized format by December 2015. Until then, manufacturers may use their own format or the new format, so you will see both. The new format has 16 sections and is described below.

The Hazard Communication Standard (HCS) requires chemical manufacturers, distributors, or importers to provide Safety Data Sheets (SDSs) (Formerly known as Material Safety Data Sheets or MSDSs) to communicate the hazards of hazardous chemical products. As of June 1, 2015, the HCS will require the new SDSs to be in a uniform format, and include the section numbers, the headings, and associated information under the headings below:

Section 1, Identification includes product identifier; manufacturer or distributor name, address, phone number; emergency phone number; recommended use; restrictions on use.

Section 2, Hazard(s) identification includes all hazards regarding the chemical; required label elements.

Section 3, Composition/ information on ingredients includes information on chemical ingredients; trade secret claims.

Section 4, First-aid measures includes important symptoms/ effects, acute, delayed; required treatment

Section 5, Fire-fighting measures lists suitable extinguishing techniques, equipment; chemical hazards from fire

Section 6, Accidental release measures lists emergency procedures; protective equipment; proper methods of containment and cleanup.

Section 7, Handling and storage lists precautions for safe handling and storage, including incompatibilities.

Section 8, Exposure controls/ personal protection lists OSHA's Permissible Exposure Limits (PELs); Threshold Limit Values (TLVs); appropriate engineering controls; personal protective equipment (PPE).

Section 9, Physical and chemical properties lists the chemical's characteristics.

Section 10, Stability and reactivity lists chemical stability and possibility of hazardous reactions.



Safety Management Manual

SOP GEN-013B Hazard Communication Program

Section 11, Toxicological information includes routes of exposure; related symptoms, acute and chronic effects; numerical measures of toxicity.

Section 12, Ecological information*

Section 13, Disposal considerations*

Section 14, Transport information*

Section 15, Regulatory information*

Section 16, Other information includes the date of preparation or the last revision.

*Note: Since other Agencies regulate this information, OSHA will not be enforcing Sections 12 through 15. (29 CFR 1910.1200(g)(2)).

Employers must ensure that SDSs are readily accessible to employees. See Appendix D of 29 CFR 1910.1200 for a detailed description of SDS contents.