

## Hazard Communication Program for North America

Note: Due to security concerns, some information in this chapter has been removed or replaced with XXX.

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### Attachment(s):

- Hazardous Materials Inventory (Excel)
- Hazardous Materials Inventory (Word)
- Letter Requesting an Additional MSDS or Labeling Information
- Letter Requesting an MSDS
- NFPA Warning

## Purpose and Scope

<b>Purpose</b>	<p>The purpose of this chapter is to establish the written Hazard Communication Program for use at all Linde facilities. The program is intended to:</p> <ul style="list-style-type: none"><li>• comply with OSHA requirements of the Hazard Communication Standard, 29 CFR 1900.1200</li><li>• comply with Canadian Workplace Hazardous Materials Information System (WHMIS)</li><li>• ensure that employees and contractor personnel are well informed and knowledgeable about the chemical hazards in their workplace.</li></ul>
<b>Scope</b>	<p>This policy applies to all Linde North America locations with employees who work with or may be exposed to hazardous chemicals.</p>

## Responsibility for the Hazard Communication Program

<b>Senior Manager</b>	<p>The Senior Manager <b>must</b> ensure location compliance with the hazard Communication Program through periodic reviews.</p>
<b>SHEQ Staff</b>	<p>The SHEQ Staff is responsible for:</p> <ul style="list-style-type: none"><li>• reviewing location adherence to the Hazard Communication Program during internal audits</li><li>• maintaining accurate, up-to-date Linde Material Safety Data Sheets</li></ul>
<b>Safety and Health Coordinator</b>	<p>The Location Manager is responsible for designating a Safety and Health Coordinator for site who will be responsible for:</p> <ul style="list-style-type: none"><li>• identification of hazardous chemicals and maintaining a hazardous materials inventory</li><li>• acquiring and updating material safety data sheets (MSDS) for the site</li><li>• evaluation of hazardous chemicals</li><li>• container labeling</li><li>• employee information and training</li><li>• contractor information exchange.</li></ul>

<b>All employees</b>	Employees are responsible for complying with and supporting the hazard communication program by doing the following: <ul style="list-style-type: none"><li>• reading labels and MSDSs</li><li>• following warnings and instructions</li><li>• using the correct personal protective equipment (PPE)</li><li>• learning emergency procedures</li><li>• practicing safe work habits</li><li>• reporting non-conformance.</li></ul>
<b>Contractors</b>	Contractors are responsible for complying with Linde requirements regarding Hazard Communication.

## Hazardous Chemical Inventory

<b>Identification of hazardous chemicals</b>	<p>The responsibility for determining whether a chemical is hazardous lies with the manufacturer or importer of a chemical which is typically provided in the form of a Material Safety Data Sheet (MSDS).</p> <p>Chemicals are considered Hazardous if they meet any of the following criteria:</p> <ul style="list-style-type: none"><li>• Regulated by OSHA in 29 CFR 1910 or the Canada Hazardous Products Act or Controlled Products Regulations</li><li>• Included in the American Conference of Governmental Industrial Hygienists' (ACGIH) latest edition of Threshold Limit Values for Chemical Substances and Physical Agents in the Work Environment</li><li>• Suspected or confirmed carcinogens as listed by the National Toxicology Program in the latest edition of the Annual Report on Carcinogens, or by the International Agency for Research on Cancer (IARC) in the latest edition of the IARC monographs</li><li>• Known to be a <i>Health Hazard</i> or <i>Physical Hazard</i>.</li></ul>
<b>Chemical inventory</b>	<p>A hazardous chemical inventory <b>must</b> be developed by a physical survey and/or investigation of purchasing records. The inventory:</p> <ul style="list-style-type: none"><li>• identifies hazardous chemicals that are used, produced, transported, or stored and to which employees may be exposed</li><li>• is updated as necessary to include all new hazardous chemicals introduced to the facility</li><li>• is accessible to all employees.</li></ul> <p><b>Note:</b> Products that are only resold and that do not present a potential hazard to employees are not required to be on the hazardous chemicals list.</p> <p>For a form to document the chemical inventory, see <i>Forms and Attachments (Page 10)</i></p>

**Chemical Inventory for Site**      The most current hazardous chemical inventory is filed on site and posted with the MSDSs.

## Material Safety Data Sheets (MSDSs)

**What MSDSs are required**      All Linde operations **must** have an MSDS for each hazardous chemical that is listed on the hazardous chemical inventory.

MSDSs provide specific safety, health and environmental information relating to the chemicals on site.

**Accessing MSDSs**      MSDSs will be made readily available to all employees. The site MSDSs are readily accessible in the MSDS binder or file.

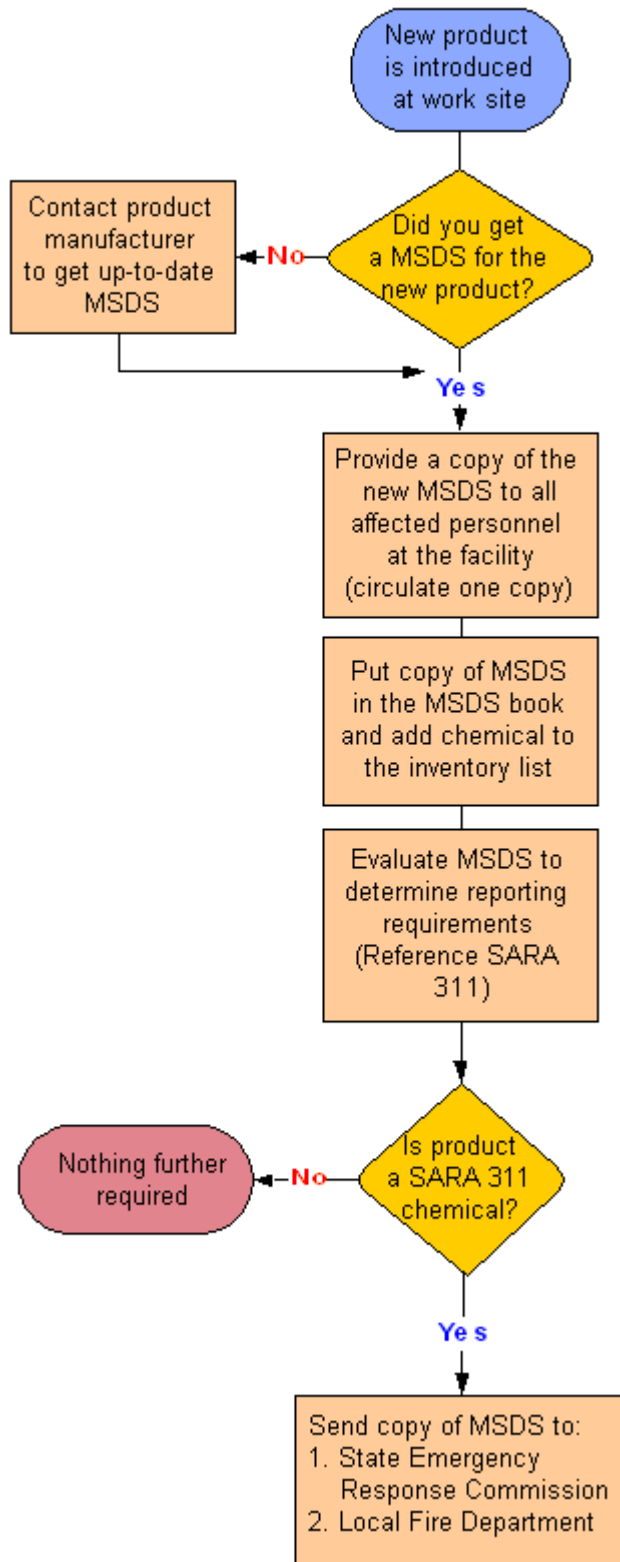
**Note:**      Linde MSDSs are available in hard copy, via a fax-back system at 1-800-XXX-XXXX, CD-ROM or intranet.

**Maintaining MSDSs**      The Safety and Health Coordinator for the site is responsible for maintaining the MSDSs, which includes:

- updating the MSDS binder and filing new MSDSs when they are received
- archiving MSDSs received at site for 30 years.

**Documenting a new product with MSDS**

Below is a chart that summarizes the appropriate actions to take after receiving a new product on site:



## Hazardous Chemical Procurement

### Procuring hazardous chemicals

All requests for chemicals **must** be processed through the Safety and Health Coordinator before placing the order. The Administrator will determine how to handle the purchase based on the following guidelines:

If...	Then...
Chemical is listed on Hazardous Chemical Inventory and MSDS is available	Process purchase order
Chemical is <b>not</b> listed on Hazardous Chemical Inventory	Initiate Management of Change process. For more information, see <a href="#">IMS-04-16 : Engineering Management of Change (MOC)</a>

### Evaluating new chemical purchases

If the requested chemical is not on the current Hazardous Materials Inventory, a thorough hazard evaluation **must** be performed on the chemical before it can be purchased or allowed on site. The hazard evaluation **must** consider:

- current information and MSDS supplied by the chemical manufacturer or importer of the chemical.
- handling and storage of the chemical on site
- building codes
- environmental impacts
- regulatory requirements/permits
- potential incompatibility of the new chemical
- personal protective equipment is required to work with the chemical

**Note:** The SHEQ Department is available for help in the hazard evaluation, if needed.

Once the MOC process is concluded, the request to purchase is either approved or denied.

- Obtaining MSDSs from supplier** Regulations require that an MSDS accompany or precede the initial shipment of a hazardous chemical. In addition, when an MSDS is changed, the updated version **must** be provided with the first shipment.
- If the manufacturer/supplier fails to send an MSDS or the MSDS is incomplete or unclear:
- Quarantine and do not use the substance or product
  - Contact the manufacturer or supplier to request clarification or obtain missing information. Use the following sample letters:
    - *Letter Requesting an MSDS (see attachment)*
    - *Letter Requesting an Additional MSDS or Labeling Information (see attachment)*
- If the manufacturer/supplier fails to respond to a request for an MSDS:
- Within 30 days, issue a follow-up (second) request letter by registered mail, and keep a record of this request on file.
  - If the manufacturer/supplier fails to respond to the second request within 15 days, notify the Manager, Loss Control, who will help determine the most appropriate course of action.
- Receiving chemicals** Incoming shipments of hazardous chemicals and all containers of hazardous chemicals in the work site **must** be properly identified. The labels or other forms of warning **must** be legible, printed in the predominate language, and prominently displayed.

## Hazardous Chemical Storage

- Chemical storage guidelines** Hazardous chemicals storage will be consistent with the information on the MSDS. A plot plan showing the location of all hazardous storage areas **must** be available and posted at the site. The following guidelines will be followed at all sites:
- Fuels and oxidizers are segregated by a fire wall or 20 feet
  - Different classes of chemicals will be segregated by a fire wall or 10 feet
  - Incompatible chemicals will be segregated by a fire wall or at least 20 feet
  - Hazardous liquids are stored in a weather-protected area with secondary containment
  - The original chemical container or equivalent substitute is used for storage
  - Self-closing valves are used to dispense all liquid hazardous materials from drums and portable containers
  - Small containers of flammable liquids, aerosols and gases are stored in approved flammable cabinets
  - Dispensing of flammable liquids requires bonding and grounding of storage vessel.

## Labeling

General chemical container labeling requirements	<p>Planned General Inspections will be conducted to ensure that all hazardous chemicals in the facility are properly labeled. Labels <b>must</b> list at least:</p> <ul style="list-style-type: none"><li>• chemical identity</li><li>• appropriate <i>Hazard Warning</i> and precautionary statements</li><li>• name and address of the manufacturer, importer, or other responsible party</li></ul>
NFPA Fire Diamond	<p>The National Fire Protection Association (NFPA) marking system is used to identify the health, fire, and reactivity hazard of chemicals of many stationary tanks and vessels. For additional information, see <i>NFPA Warning (see attachment)</i>.</p>
Labeling pipes	<p>Pipes containing hazardous materials will be labeled with the identity of the product.</p>
Storage tanks	<p>Storage tanks <b>must</b> be labeled with the following at a minimum:</p> <ul style="list-style-type: none"><li>• Product identity</li><li>• NFPA fire diamond or appropriate hazard warning</li></ul> <p><i>Note:</i> Several municipalities require the NFPA fire diamond</p>
Process vessel exemption	<p>Process vessels are <b>not</b> required to have labeling. For example, heat exchangers or pressure columns.</p>
Labeling containers used for transfer	<p>If an employee transfers chemicals from a labeled container to a portable container that is intended only for that employee's immediate use within that shift, no label is required on the portable container.</p> <p>All other portable containers <b>must</b> identify the chemical identity and appropriate hazard warnings.</p>
Labeling hazardous waste	<p>The site's Environmental Plan provides more information on hazardous waste labeling. For further information, see the Site Environmental Plan.</p>

## Non-routine Tasks

**Non-routine tasks** If hazardous, non-routine tasks are required, such as hot work, cleaning tasks or entering confined spaces, employees will be trained regarding the hazardous chemicals that they might be exposed to, and also to the proper precautions for reducing or avoiding exposure. This review will be done through one of the following systems:

- Lockout/tagout
- Hazardous Work Permit
- Confined Space Entry Permit.

## Management of Contractors

**Contractor safety** Prior to initiation of a project, contractors are informed by written correspondence of the materials that contractor employees might be exposed to at the work site. In addition, appropriate MSDSs are distributed to the contractor. In return, the contractor informs Linde of hazardous materials being used in the project that might impact Linde employees.

The process used for ensuring this takes place is discussed in the chapter *IMS-32-04 : Contractor Safety*.

## Training

**When is training required** Regulations require that employees who might be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies be informed and trained as follows:

- before an employee's initial assignment to work with a hazardous chemical or substance
- when an employee is reassigned to a different work area
- when a new hazardous material is introduced into the work area
- refresher training every 3 years or more frequently as required by local statute.

**Training requirements**

The training will emphasize these items:

- Contents of this chapter.
- Chemical and physical properties of hazardous materials, such as flash point, reactivity, etc., and methods that can be used to detect the presence or release of chemicals.
- Health hazards, including signs and symptoms of exposure associated with chemical exposure, and any medical condition known to be aggravated by exposure to the chemical.
- How to read and interpret an MSDS.

**Training records** A record of training will be maintained at the site.

## Recordkeeping

**Retention**        The current copy of the Hazardous Materials Inventory **must** be kept on site.

## Forms and Attachments

**Forms**            For forms used in this chapter:

- *Hazardous Materials Inventory (Word) (see attachment)*
- *Hazardous Materials Inventory (Excel) (see attachment)*

**Note:**    Either Word or Excel formats can be used to document the Hazardous Materials Inventory.

**Attachments**    For attachments used in this chapter:

- *Letter Requesting an MSDS (see attachment)*
- *Letter Requesting an Additional MSDS or Labeling Information (see attachment)*
- *NFPA Warning (see attachment)*