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Requirements
for
Hazard Communication Program

REVISION

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1. PURPOSE AND SCOPE

- 1.1 The purpose of this document is to provide the requirements to be met under the Hazard Communication (HAZCOM) Program NY CREATES sites where NY CREATES is the employer.
- 1.2 Ensure compliance with the New York Right-To-Know law and OSHA's Hazard Communication Standard (HCS) 29 CFR 1910.1200.
- 1.3 Ensure that the hazards of the chemicals used at NY CREATES sites are evaluated and that the information concerning their hazards is identified and conveyed to those who work with, or around, these chemicals. This shall include NY CREATES employees, students, tenants, temporary employees, and contractors.
- 1.4 Ensure that the information regarding the hazards of the chemicals used on site is readily accessible to those who may need to access it. The information shall be in the form of but not limited to container labels and Safety Data Sheets (SDS).
- 1.5 Provide new employees and students and other members of the site community with training on this Hazard Communication Program and the relevant Environmental Health and Safety (EHS) policies.

2. RESPONSIBILITIES

The OSHA HCS sets forth responsibilities for chemical manufacturers and employers using hazardous chemicals, and the employees who use chemicals in the workplace.

2.1 Department Managers, Professors and Supervisors

Are responsible to ensure that the requirements of the respective Hazard Communication Program are adhered to and:

- 2.1.1 Shall ensure that their employees, researchers, and students are aware of, and understand, the respective requirements of the Hazard Communication Program, and that the necessary training is provided to the employees, researchers, and students within their organization.
- 2.1.2 Shall provide their employees, researchers, and students with the safety requirements of their jobs, including but not limited to the hazards of the chemicals used, Personal Protective Equipment (PPE) requirements and availability, how to access SDSs, and appropriate emergency procedures. Additional instructions must be provided whenever the potential for exposure to toxic substances is altered, or a new chemical with a new hazard classification is introduced in the work areas.

2.2 Employees and Students

Shall be alert to the potential hazards of their jobs and shall conduct their jobs in a safe manner, following relevant safety procedures. Whenever there is a question regarding the handling or use of a chemical, the container label and/or SDS shall be reviewed. The employee or student shall seek guidance on specific information by contacting their Supervisor, Principal Investigator (PI), or a member of the NY CREATES [Environmental Health and Safety](#) department (EHS).

2.3 EHS Department

Is responsible for ensuring that this Hazard Communication Program meets all relevant Federal, State, and local law requirements. The EHS Department shall provide advice to department managers, professors, supervisors, employees, and students; and ensure training is available.

2.4 Individual who is the Sponsor and/or Field Coordinator (FC) for Contractors Doing Work on Site

Is responsible for:

- Advising the contractor to provide SDS for chemicals intended to be used on site for EHS review and approval prior to performing work on site.
- Ensuring contractors comply with Section 2.5.

2.5 Contractors

2.5.1 The contractor must follow the site requirements detailed in **ANT-00004 – Contractor Safety Guide for the Albany NanoTech** Complex as well as relevant laws and regulations when working onsite.

2.5.2 NY CREATES employees and/or students may not use a Contractor Supplied Chemical(s) unless they are procured through NY CREATES Procurement, and the individual(s) has received training on the SDS, proper usage and safety procedures associated with the chemical.

3. ASSOCIATED DOCUMENTS

- 3.1 **ANT-00004** – Contractor Safety Guide for the Albany NanoTech Complex
- 3.2 **EHS-00002-F4** – Energetics Form
- 3.3 **EHS-00005** – Chemical Handling and Storage Procedure
- 3.4 **EHS-00016** – New Equipment and Process Change Management Procedure
- 3.5 **EHS-00079** – Handling Unapproved Chemicals Received at the Albany Nanotech Complex

4. PROCEDURE

4.1 Chemical Authorization Program

4.1.1 Prior to introducing a new chemical, the requestor must:

- Acquire a current vendor/supplier Safety Data Sheet (SDS) for the chemical being requested.
- Submit the SDS along with a chemical request using the HAZMIN online system. (To create a login account and request a chemical, access <http://cnse.comply1.com/>[create a login ID there]).

The request will be submitted to EHS who will review the chemical for approval.

Once the chemical request is approved by EHS, the requestor will receive an email confirming the approval, and the new chemical will be added to the approved chemical list (ACL) in HAZMIN.

If a new chemical is going to be added to a tool, an **EHS-00016-F1 – New Equipment Installation or Equipment Modification or Process Change Checklist** needs to be submitted to EHS listing the new chemicals to be added in Table 1.

IMPORTANT: If a requestor / chemical user chooses to rename a material:

- The requestor/chemical user must work with the supplier/vendor to ensure an SDS for the new name is provided to the EHS office [and submit the new SDS in Hazmin](#).
- All containers provided by the vendor/supplier must also be labeled with the new name.
- All tools and piping must also be labeled with the new name.

4.1.2 The purpose of this review is to ensure that the chemical properties and associated hazards are in adherence to site and regulatory requirements related to exhausts, drains, and disposal of the chemical.

- Once all required information is received by EHS, there is a 10 working-day turn-around time to review and approve such materials.
- Exceptions to the 10 working-day turn-around would apply to chemicals which may be highly reactive, unstable, and/or energetic in nature, in which case **EHS-00002-F4** “Energetics Form” may be required at the discretion of the EHS Department for additional review and approval.

4.1.3 The ACL can be accessed [here](#):
<http://cnse.comply1.com/default.asp?hazminUn=cnsertk&hazminPwd=ny12203&hazminFac=CNSE%20Albany&logon=N>.

4.1.4 The ACL is maintained by the HAZMIN system and is updated immediately once a chemical is approved. By accessing the SDS search site, an individual can view the chemicals that are approved onsite and which tool(s) / lab(s) they are approved for, their [SDSs](#), the hazard information, and approval dates.

NOTE: ALL CHEMICALS ARE APPROVED ON A TOOL-BY-TOOL OR LAB-BY-LAB BASIS.

4.1.5 Prior to delivering the chemical to the requestor, the [Site](#) Receiving Department shall ensure the chemical has been approved and listed on the ACL by verifying the approved HAZMIN number specific to the chemical, requestor, and facility location.

- If the chemical is not on the approval list, the Receiving Department will follow **EHS-00079 – Handling Unapproved Chemicals Received at Albany Nanotech Complex**.

- 4.1.6 The requestor shall ensure that all appropriate labeling and listed EHS requirements are met when the chemical is used.
- 4.1.7 All chemicals must be procured through NY CREATES Purchasing. The requestor must obtain approval for the purchase of a chemical through the HAZMIN system prior to the chemical being placed on order. Chemical samples received without prior approval shall not be delivered to the requestor. The requestor must obtain approval for the chemical sample through the HAZMIN system.
- 4.2 **Labeling**
- 4.2.1 All chemical containers and equipment which use or store chemicals shall be clearly labeled as to their contents. These labels must be legible, in English and prominently displayed. Follow **EHS-00005 – Chemical Handling and Storage** for labeling requirements for a chemical storage cabinet, refrigerator, room, etc.
- All primary containers of hazardous chemicals from chemical manufacturers must be labeled, tagged, or marked with: product identifier, signal word, hazard statements, pictograms, precautionary statements, and name, address and phone number of the chemical manufacturer, importer, or other responsible party.
- 4.2.2 Materials which contain tetramethylammonium hydroxide (TMAH) shall be clearly identified on the label with the words “Contains TMAH” and the percentage (%).
- 4.2.3 Primary chemical containers which have pre-affixed hazard labels from the manufacturer can be used at the workplace provided that the label contains the major chemical components and hazard information about the chemical inside the container.
- 4.2.4 All secondary chemical containers used at the workplace on site must be labeled. The label must contain the chemical name and hazard information. The hazard information of the chemical shall be in pictograms, signal words, and hazard descriptions. NFPA numeric ratings may also be used as desired. An example of the GHS label and an illustration of the GHS pictograms is referenced in Appendix A and Appendix B, respectively. Blank labels for chemical containers are available at the HS office.
- 4.2.5 Under no conditions shall any chemical label be defaced.
- 4.2.6 All chemical drains, collection systems, facility and process plumbing shall be labeled as to their contents and direction of flow at regular intervals, and at every change in direction and penetration.

4.2.7 All process gas lines including the sections within the Gas Interface Boxes (GIB) must be labeled as to their contents and direction of flow. The label within the GIB must be affixed to the gas line and shall be visible without having to open the door of the box.

4.3 **SDSs**

4.3.1 An SDS is kept for each chemical listed on the ACL. Whenever a new vendor is desired for an existing approved chemical, a SDS must be requested from the new vendor by the requestor [and the new SDS submitted in Hazmin](#).

4.3.2 Employees, students, and other members of the Albany Nanotech Complex ([ANC](#)) have immediate online access to the ACL and SDS for chemicals used onsite. The online SDS can be accessed [as described above](#).

IMPORTANT: The ACL is updated immediately once a chemical is approved in HAZMIN or when a new revision of the SDS is sent to EHS by the supplier or manufacturer. If the new SDS or revised SDS is sent to the chemical requestor from the manufacturer, the chemical requestor shall send a copy of the SDS to EHS so that the SDS information in HAZMIN can be updated.

5. **RECORDS**

5.1 Information regarding proprietary chemical formulas, ingredients and specific usage will be treated as confidential and only disclosed as required by 29 CFR 1910.1200(i).

6. **TRADE SECRET**

6.1 [EHS](#) reserves the right to request a fully-disclosed SDS from the supplier for any proprietary / trade secret chemicals in order to assess the hazards of the chemicals to which employees may be exposed.

6.2 It is the responsibility of the chemical requestor to request a disclosed SDS be sent to EHS.

6.3 If the supplier requires a non-disclosure agreement (NDA) to protect proprietary information, the chemical requestor shall provide a contact name of the supplier to EHS so that the NDA can be secured and a fully disclosed SDS can be provided directly to EHS. All Fully Disclosed SDSs will be kept [secure](#) by EHS to protect confidentiality.

7. TRAINING

- 7.1 Prior to beginning work in an area which utilizes chemicals, employees (e.g., new, rehired, temporary), shall receive training on the Hazard Communication Program. This training is provided through but is not limited to the Safety Orientation training program. Other job specific training (e.g., Laboratory Safety, Cleanroom Safety) also contain Hazard Communication Program information. Other members of the site community (e.g., contractors, tenants) receive training on [this](#) Hazard Communication Program through the Safety Orientation training program and their employer's sponsored training requirements.
- 7.2 It is the responsibility of each Supervisor, Department Manager or [PI](#) to provide safety training specific to the job and the area in which any employee new to the area must work.
- 7.3 [This](#) Hazard Communication Program training shall include, but not be limited to:
- Overview of [this](#) Hazard Communication Program
 - How to detect the presence or release of a hazardous chemical in the work area
 - How to read and understand an SDS, where SDS's are located, how to access an online SDS in HAZMIN and how to obtain a copy of an SDS
 - How to obtain approval for a new chemical
 - The physical and health hazards of the chemicals used in the work area
 - Types and proper selections of PPE used in the work area
 - The chemical labeling system used [onsite](#)
 - Safe work practices to be used
 - Emergency procedures responding to physical / health hazards or detection of a hazardous chemical in the work area
- 7.4 Information regarding the use of new or existing chemicals which present new potential hazards shall be communicated to all affected employees/students by the Department Manager, [PI](#), or Supervisor prior to introducing the chemical into the area.

8. ACCESS TO MEDICAL INFORMATION

An employee may request and receive information relevant to environmental testing in their work area, and personal biological monitoring results through the EHS Department.

9. APPENDICES

9.1 **Appendix A** – Example of GHS Label - for Isopropyl Alcohol (IPA)

9.2 **Appendix B** – GHS Pictograms

APPENDIX A - EXAMPLE OF GHS LABEL FOR ISOPROPYL ALCOHOL (IPA)

PRODUCT ID:	100% IPA		
SIGNAL WORD	DANGER <input checked="" type="checkbox"/> WARNING <input type="checkbox"/> N/A <input type="checkbox"/>		











1	3
HEALTH	FIRE

0	SPECIAL INFO
REACTIVITY	SPECIAL INFO

SPECIAL HAZARD / PRECAUTIONARY INFORMATION	PPE CODE
Flammable. Causes eye irritation	(Optional)

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APPENDIX B -GHS PICTOGRAMS

GHS Physical Hazard Pictograms				
Flammables	Oxidizers	Corrosives	Explosives	Compressed Gases
				
<i>Specific physical hazards included in this pictogram group</i>				
<ul style="list-style-type: none"> -Flammable -Pyrophoric -Self-heating -Emits flammable gas -Self-reactive -Organic peroxide 	<ul style="list-style-type: none"> -Oxidizer 	<ul style="list-style-type: none"> -Corrosive to metal 	<ul style="list-style-type: none"> -Explosive -Self-reactive -Organic peroxide 	<ul style="list-style-type: none"> -Gases under pressure
GHS Health Hazard Pictograms				
Corrosives	Skull & Crossbones	Health Hazard	Exclamation Point	Environmental
				
<i>Specific health hazards included in this pictogram group</i>				
<ul style="list-style-type: none"> -Skin corrosion/burns -Serious eye damage 	<ul style="list-style-type: none"> -Acute toxicity (fatal or toxic) (category 1,2,3) 	<ul style="list-style-type: none"> -Carcinogen -Mutagen -Reproductive toxicity -Respiratory sensitizer -Target organ toxicity -Aspiration toxicity 	<ul style="list-style-type: none"> -Irritant (skin and eyes) -Skin sensitizer -Acute toxicity (category 4) -Narcotic effect -Respiratory tract irritant 	<ul style="list-style-type: none"> -Aquatic toxicity (based on LC50 for fish)