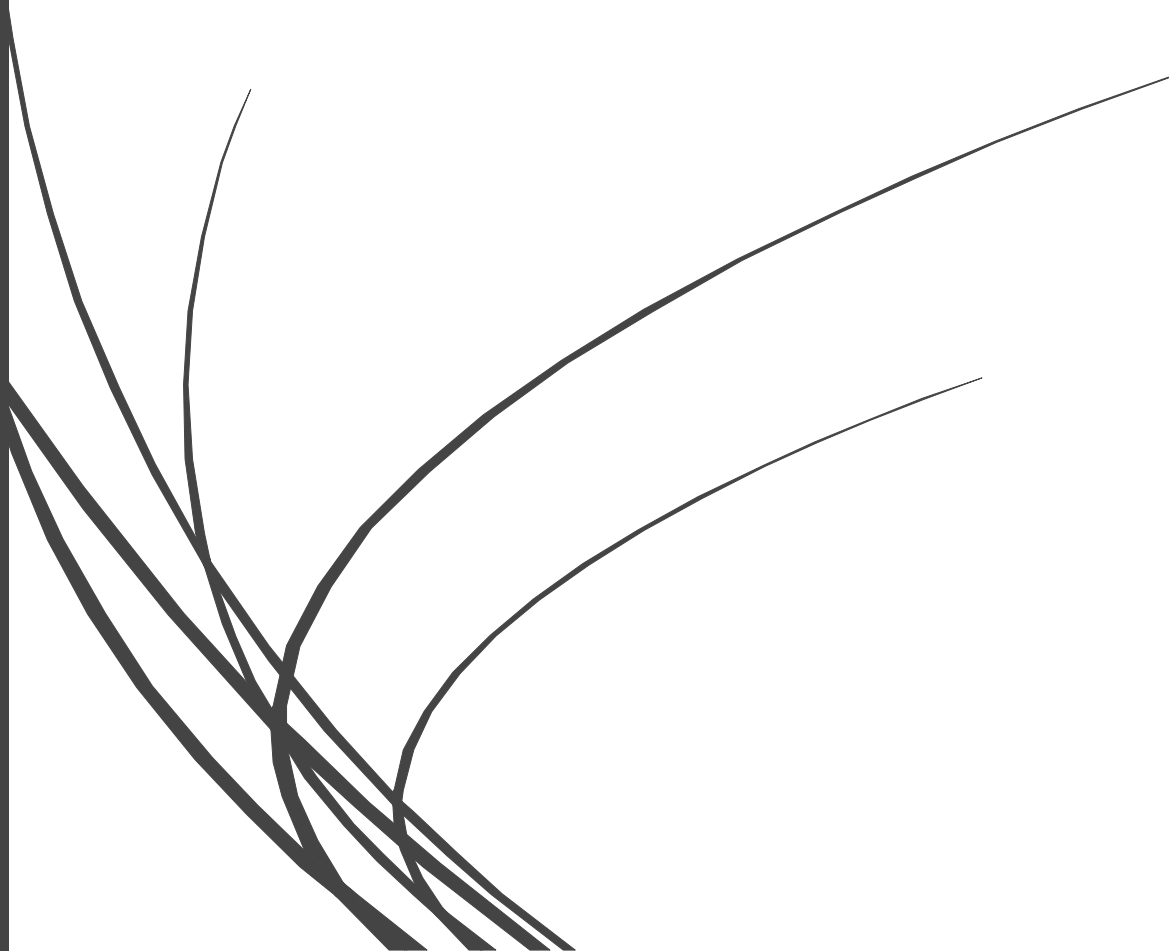


# CASE WESTERN RESERVE UNIVERSITY

Regulated Carcinogen Program

Approved On: 11/11



## I. Overview

The purpose of this program is protect all Case Western University Reserve (CWRU) employees and students from OSHA select carcinogens identified in 29 CFR 1910 Subpart Z Toxic and hazardous substances." To Definition of an OSHA select carcinogen is a carcinogen or potential carcinogen which is regulated by detailed, substance



V. List of Regulated Select Carcinogens

4-Nitrobiphenyl

alpha-Naphthylamine

Methyl chloromethyl ether

3,3'-Dichlorobenzidine (and its salts)

bis-Chloromethyl ether

beta-Naphthylamine

Benzidine

4-Aminodiphenyl

Ethyleneimine

beta-Propiolactone

2-Acetylaminofluorene

4-Dimethylaminoazobenzene

N-Nitrosodimethylamine

Inorganic arsenic

monitoring and measuring procedures. All regulated areas need to post the appropriate signage as described in section IV, B.

For traditional, closed type laboratories all entrances shall be labeled as well as storage areas for chemicals with the entrance legends described in section IV, B. For open bench laboratories all benches, fume hoods, storage areas, and any other select carcinogen designated work areas shall be labeled with the entrance legends described in sections IV, B.

#### B. Labeling and Signage

The supervisor or P shall ensure that signs required by this paragraph are illuminated and cleaned as necessary so that the legend is readily visible. The supervisor shall also ensure that no statement appears on or near any sign or label required by this paragraph which contradicts or detracts from the meaning of the required sign or label.

The following signage/labeling is required by OSHA under 29 CFR 1910.1003 through CFR 1910.1052:

Chemical(s)

Vinyl Chloride

Lead

The employer shall post the following warning signs in each work area where the PEL is exceeded:

DANGER

LEAD

MAY DAMAGE FERTILITY OR THE FETUS IN CHILD

CAUSES DAMAGE TO THE CENTRAL NERVOUS SYSTEM

DO NOT EAT, DRINK OR SMOKE IN THIS AREA

The employer shall ensure that labels of bags or containers of contaminated protective clothing and equipment do not become contaminated

1,2-Dibromo-3-chloropropane

Entrances to regulated areas shall be posted with signs bearing the legend:

DANGER

1,2-Dibromo-3-chloropropane

MAY CAUSE CANCER

WEAR RESPIRATORY PROTECTION IN THIS AREA

AUTHORIZED PERSONNEL ONLY

Containers of DBCP-contaminated protective devices or work clothing which are to be taken out of change rooms or the workplace for cleaning, maintenance



|                         |   |
|-------------------------|---|
| Formaldehyde(continued) | <p>Storage areas for contaminated clothing and equipment shall have signs bearing the following legend:</p> <p>DANGER<br/> FORMALDEHYDE CONTAMINATED [CLOTHING] EQUIPMENT<br/> MAY CAUSE CANCER<br/> CAUSES SKIN, EYE AND RESPIRATORY IRRITATION<br/> DO NOT BREATHE VAPOR<br/> DO NOT GET ON SKIN</p> <p>The employer shall ensure containers for contaminated clothing and equipment are labeled consistent with the following legend:</p> <p>DANGER<br/> FORMALDEHYDE CONTAMINATED [CLOTHING] EQUIPMENT<br/> MAY CAUSE CANCER<br/> CAUSES SKIN, EYE, AND RESPIRATORY IRRITATION<br/> DO NOT BREATHE VAPOR<br/> DO NOT GET ON SKIN</p> <p>Label all containers as per the Hazard Communication Standard (HCS) (§ 1910.1200)</p> |
| Methylenedianiline      | <p>Entrances to regulated areas shall be posted with signs bearing the legend:</p> <p>DANGER<br/> MDA<br/> MAY CAUSE CANCER<br/> CAUSES DAMAGE TO THE LIVER<br/> RESPIRATORY PROTECTION AND PROTECTIVE CLOTHING MAY BE REQUIRED IN THIS AREA<br/> AUTHORIZED PERSONNEL ONLY</p> <p>Label all containers as per the Hazard Communication Standard (HCS) (§ 1910.1200)</p>  |
| 1,3-Butadiene           | Label all containers as per the Hazard Communication Standard (HCS) (§ 1910.1200)   |
| Methylene Chloride.     | Label all containers as per the Hazard Communication Standard (HCS) (§ 1910.1200)   |

### C. Training

Each employee prior to being authorized to enter a regulated area, shall receive training by EHS for laboratory safety training as well as site specific training by their supervisor or PI. The training program for regulated carcinogens must cover the following topics

1. The nature of the carcinogenic hazards of a carcinogen addressed by this section (see list above), including local and systemic toxicity;
2. The site specific nature of the operation involving a carcinogen addressed by this section that could result in exposure;
3. The purpose for and application of the medical surveillance program, including, as appropriate, methods of self-examination;
4. The purpose for and application of decontamination practices and purposes;
5. The purpose

7.



### 3. Termination

Termination of surveillance can occur only when the level of exposure is under the action level and is permitted by OSHA under the individual chemical standard.

### H. Exposure Monitoring

Exposure monitoring will take place when the airborne regulated carcinogen concentration has the potential to reach or exceed the OSHA Action Level (AL) or OSHA Permissible Exposure Limits (PELs) for either the 8 hr. Time Weighted Average (TWA) or the Short Term Exposure Limit (STEL). Potential areas where monitoring will be conducted include but are not limited to: areas where high volumes and/or concentrations of regulated carcinogens are used; areas where

|                   |                            |       |       |
|-------------------|----------------------------|-------|-------|
| Vinyl chloride    | 0.5 ppm                    | 1 ppm | 5 ppm |
| Inorganic arsenic | 5 $\mu\text{g}/\text{m}^3$ |       |       |

|                             |   |
|-----------------------------|---|
| Chromium VI                 | NIOSH 7303<br>OSHA ID 125G<br>NIOSH 7303MS<br>ASTM D7439-14 |
| Cadmium                     | NIOSH 7303<br>OSHA ID 125G<br>NIOSH 7303MS<br>ASTM D7439-14 |
| Benzene                     | OSHA 7<br>NIOSH 1501<br>OSHA 1005                           |
| 1,2-dibromo-3-chloropropane | npm   |
| Acrylonitrile               | OSHA 37<br>NIOSH 1604                                       |
| Ethylene oxide              | OSHA 1010<br>OSHA 49  |
| Formaldehyde                | OSHA 52<br>NIOSH 2016<br>OSHA 1007<br>OSHA ID 205           |
| Methylenedianiline          | OSHA 57<br>NIOSH 5029                                       |
| 1,3-Butadiene               | OSHA 56<br>NIOSH 1024                                       |
| Methylene Chloride          | OSHA 80<br>OSHA 7<br>NIOSH 1005                             |

npm = no published method

\*= A CWRU SOP has been established  
for this method

IX. Forms and additional Information

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