

Hide - n- Seek: Lets go searching for hidden hazards in laboratories



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Health Enforcement Manager

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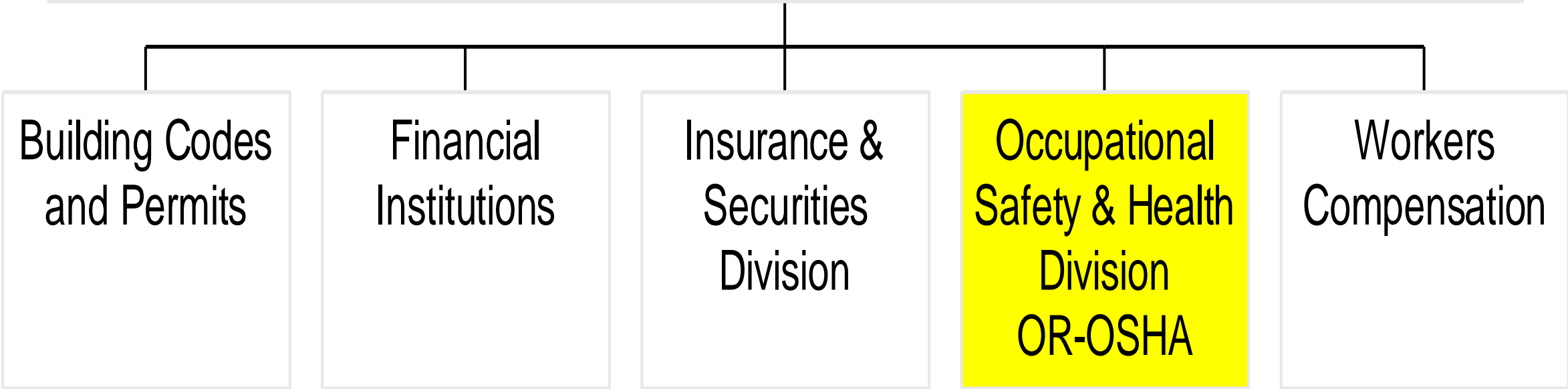
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Organizational Structure

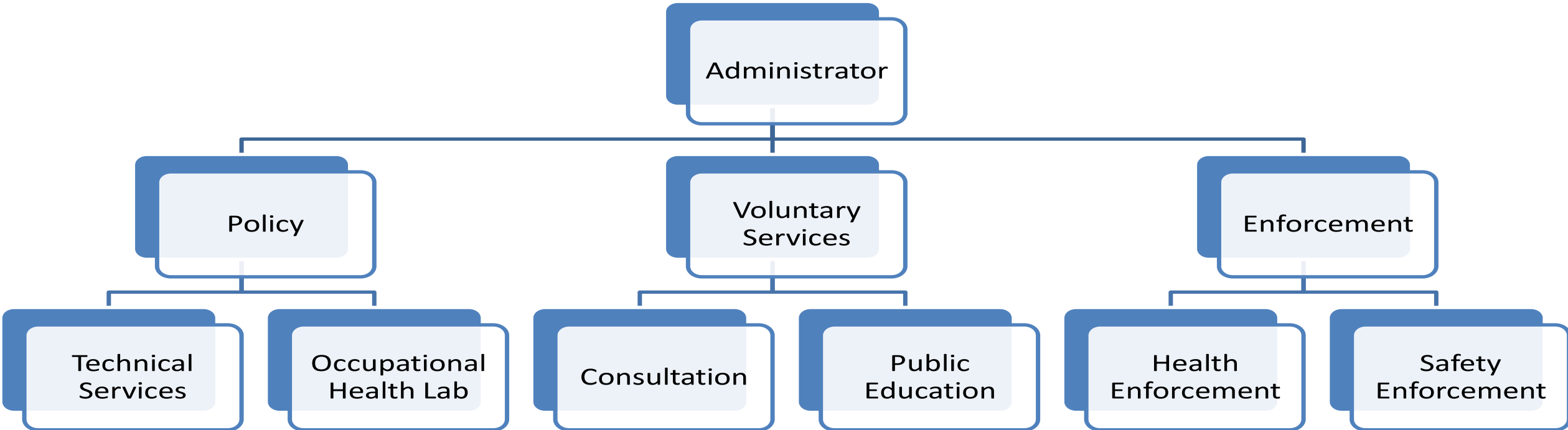
Department of Consumer and Business Services (DCBS):

Oregon's largest regulatory agency.

The department administers state laws and rules and protects consumers and workers.



Oregon OSHA Organizational Structure





Oregon Occupational Safety and Health

Advancing and improving workplace safety and health for all workers in Oregon

[Report a fatality or serious injury](#)

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Common resources

- [A to Z topic index](#)
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- [Inspections, citations, appeals](#)
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CONSULTATION SERVICES

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Overview

Oregon OSHA consultation services are free and confidential. Our consultants in workplace safety, industrial hygiene, and ergonomics can help you reduce accidents and related costs and help you develop a comprehensive program to manage safety and health.

[Request a consultation](#)

To contact one of our offices by phone, select the county where the business is located to get the field office phone number for that location.

Select County

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Publications

- [Consultation Reference Guide](#)
- [Consultation Services flyer](#)



- [Servicios de consulta de Oregon OSHA](#)
- [Challenge Program overview card](#)
- [Programa de desafío](#)

CHEMICALS.....



How many Oregon OSHA regulations will be triggered due to the presence of chemicals in the workplace?

- Hazard Communication
- Personal Protective Equipment
- Chemical Hygiene Plan
- Respiratory Protection
- Chemical Specific Regulations
- Emergency Medical Plan and provisions
- Material Storage Requirements

Hazard Communication

ELEMENTS OF PROGRAM

- 1.) Written Hazard Communication Program
- 2.) List of chemicals present in the workplace
- 3.) Updated Safety Data Sheets for each chemical
- 4.) Container Labeling
- 5.) Employee Training

Level 3 - Restricted



DCBS | Consumer and
Business Services
Oregon OSHA

Personal Protective Equipment

WORKER HEALTH AND SAFETY



Personal Protective Equipment Hazard Assessment

OSHA | Oregon
OSHA
Department of Consumer
and Business Services

Program Elements

- 1.) Complete a PPE hazard assessment (must be documented) for the work tasks performed by employees to determine the level and type of PPE required
- 2.) Ensure the use of the required PPE
- 3.) Inspection and Maintenance of PPE

SAFETY DATA SHEET

Creation Date 27-January-2010

Revision Date 13-August-2024

Revision Number 9

1. Identification

Product Name	Methylene chloride
Cat No. :	D37-1; D37-4; D37-20; D37-200; D37-200LC; D37-500; D37FB-19; D37FB-50; D37FB-115; D37FB-200; D37POP-19; D37POPB-50; D37POPB-200; D37RB-19; D37RB-50; D37RB-115; D37RB-200; D37RS-19; D37RS-28; D37RS-50; D37RS-115; D37RS-200; D37SK-4; D37SK-4LC; D37SS-28; D37SS-50; D37SS-115; D37SS-200; D37SS-1350; D37RS1000ASME; NC1485726; D37RE200ASME; NC1568702; NC1641358; XXMECLDOW2000; XXMECLDOW200LI; NC1870181; D37ETSS1350; XXD37ET200LI; NC1948847; D37SS-19; NC2047457; NC1561768; NC2373916; D37RS200ASME; D37RS1350ASME; NC2575075
CAS-No	75-09-2
Synonyms	Dichloromethane; DCM
Recommended Use	Laboratory chemicals.
Uses advised against	Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company
Importer/Distributor
Fisher Scientific

Manufacturer
Fisher Scientific Company

Personal protective equipment

Eye Protection

Goggles

Hand Protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Glove material	Breakthrough time	Glove thickness	Glove comments
Viton (R)	See manufacturers recommendations	-	Splash protection only

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

CHEMICAL GLOVE RESISTANCE GUIDE



Ansell **GUARDIAN**[®]
Global Safety Services

Legend

Permeation Breakthrough Times (min)	
<10	Not Recommended
10-30	Splash Protection
30-60	Splash Protection
60-120	Medium Protection
120-240	Medium Protection
240-480	Good Protection
>480	Good Protection

Degradation Ratings	
DD	Delamination of Outer Layer
NR	Not Recommended
P	Poor
F	Fair
G	Good
E	Excellent

If a specific Ansell glove or chemical is not found on this chart, please contact your Ansell representative or call us at 800-800-0444 to conduct a Chemical Guardian.

The permeation breakthrough times presented in this chart were evaluated according to the ASTM F739 standard. The letters used in this chart correspond to the degradation ratings, where as the colors represent the permeation breakthrough levels (see legend for more information).

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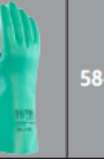




Disclaimer

Recommendations are based on extrapolations from laboratory test results and information regarding the composition of chemicals and may not adequately represent specific conditions of end use. Synergistic effects of mixing chemicals have not been accounted for. For these reasons, and because Ansell has no detailed knowledge of or control over the conditions of end use, any recommendations must be advisory only and Ansell fully disclaims any liability including warranties related to any statement contained herein.

<http://guardianapps.ansell.com/termservice>



Degradation and Permeation Breakthrough Times

Material				Butyl		LLDPE		Natural Rubber/ Neoprene		Neoprene		Neoprene		Nitrile		Nitrile		Polyvinyl Alcohol		PVC		Viton Butyl	
Thickness (mil)				14		2.5		27		18		55		11		18		37.5		70		12	
Product Name / Style				ChemTek™		Barrier®		Chemi-Pro®		Neoprene®		Scorpio®		Solvex®		AlphaTec®		PVA™		Snorkel®		ChemTek™	
Type	CAS	Chemical name	%																				
				D	P	D	P	D	P	D	P	D	P	D	P	D	P	D	P	D	P	D	P
sgl	64-19-7	Acetic acid, glacial	100	E	>480'	E	120-240'	E	60-120'	E	>480'	E	>480'	G	30-60'	G	120-240'	NR	<10'	F	10-30'	DD	>480'
sgl	67-64-1	Acetone	100	E	240-480'	E	>480'	G	<10'	G	<10'	G	<10'	NR	<10'	NR	<10'	P	60-120'	NR	<10'	DD	120-240'
sgl	75-05-8	Acetonitrile	100	E	>480'	E	>480'	E	10-30'	E	10-30'	E	10-30'	F	<10'	F	10-30'	E	60-120'	NR	<10'	DD	>480'
sgl	79-10-7	Acrylic Acid	100	-	>480'	-	>480'	E	60-120'	E	>480'	E	>480'	G	30-60'	G	30-60'	NR	<10'	NR	30-60'	-	>480'
sgl	NR	Acrylonitrile	100	E	240-480'	E	>480'	-	<10'	-	30-60'	-	30-60'	-	<10'	-	<10'	E	>480'	-	<10'	E	240-480'
sgl	107-18-6	Allyl alcohol	100	E	>480'	E	>480'	E	10-30'	E	240-480'	E	240-480'	F	30-60'	F	60-120'	P	<10'	P	60-120'	E	120-240'
sgl	1336-21-6	Ammonium Hydroxide	25	E	>480'	E	10-30'	E	10-30'	E	>480'	E	>480'	E	120-240'	E	>480'	NR	<10'	E	10-30'	E	>480'
sgl	71-43-2	Benzene	100	P	<10'	E	>480'	NR	<10'	NR	<10'	NR	<10'	P	<10'	P	30-60'	E	>480'	NR	<10'	E	240-480'

Chemical Hygiene Plans

Program Elements:

- 1.) Written Chemical Hygiene Plan
- 2.) Annual Review of the effectiveness of the plan
- 3.) Chemical exposure monitoring
- 4.) Chemical Safety Officer
- 5.) Employee training

Level 3 - Restricted



Oregon
OSHA
A Division of the
Department of Consumer
and Business Services

Respiratory Protection

Program Elements:

- 1.) Evaluation of the respiratory hazards in the workplace to determine if respirators are required or may be voluntary use.
- 2.) Written Respiratory Protection Program
- 3.) Program Administrator
- 4.) Medical Clearances to wear a Respirator
- 5.) Fit Testing annually for Respirator
- 6.) Inspection/maintenance/storage
- 7.) Employee training
- 8.) Periodic evaluation of program effectiveness

Level 3 - Restricted

WORKER HEALTH AND SAFETY



Breathe Right!

Guide to developing a respiratory protection program for small-business owners and managers



Chemical Specific Regulations

Program Elements:

1.) 24 chemical specific regulations - if that chemical is present in the workplace - you have to evaluate compliance with that specific regulation.

2.) Almost all require employee exposure studies to determine exposure levels

3.) Almost all have specific requirements for PPE and respiratory protection requirements.

4.) Almost all have prohibited actions

5.) Almost all have employee training requirements

Subdivision Z, Toxic & Hazardous Substances

1910.1001-1910.1450 and 437-002-0170 to 2045

Administrative Order 3-2019

[PDF](#) (14 Mb)

Rule number	Rule name
437-002-0170	Worker Protection Standard (AO 1-2017)
437-002-0382	Oregon Rules for Air Contaminants (AO 3-2019)
1910.1001	Asbestos (AO 5-2012)
437-002-0368	Deterioration (AO 1-2005)
437-002-1001	Asbestos Respiratory Protection Program (AO 5-2011)
1910.1002	Coal Tar Pitch Volatiles (AO 12-1993)
1910.1003	13 Carcinogens (AO 5-2012)
437-002-0364	MOCA (AO 5-2012)
1910.1017	Vinyl Chloride (AO 3-2019)
437-002-1017	Vinyl Chloride Respiratory Protection Program (AO 3-2019)
1910.1018	Inorganic Arsenic (AO 3-2019)
437-002-1018	Inorganic Arsenic Respiratory Protection Program (AO 3-2019)
1910.1020	Access to Employee Exposure and Medical Records (AO 4-2011)
1910.1025	Lead (AO 3-2019)

13 Carcinogens

13 CARCINOGENS 4-NITROBIPHENYL, ETC.

Z

Program Elements:

- 1.) isolation areas with negative pressure
- 2.) Signage
- 3.) Access Control
- 4.) Respiratory protection requirements - some SCBA units
- 5.) Prohibited tasks
- 6.) Employee training
- 7.) Medical Monitoring for employees

§1910.1003 13 Carcinogens (4-Nitrobiphenyl, etc.)

(a) Scope and application.

(1) This section applies to any area in which the 13 carcinogens addressed by this section are manufactured, processed, repackaged, released, handled, or stored, but shall not apply to transshipment in sealed containers, except for the labeling requirements under paragraphs (e)(2), (3) and (4) of this section. The 13 carcinogens are the following:

4-Nitrobiphenyl, Chemical Abstracts Service Register Number (CAS No.) 92933;
alpha-Naphthylamine, CAS No. 134327;
methyl chloromethyl ether, CAS No. 107302;
3,3'-Dichlorobenzidine (and its salts) CAS No. 91941;
bis-Chloromethyl ether, CAS No. 542881;
beta-Naphthylamine, CAS No. 91598;
Benzidine, CAS No. 92875;
4-Aminodiphenyl, CAS No. 92671;
Ethyleneimine, CAS No. 151564;
beta-Propiolactone, CAS No. 57578;
2-Acetylaminofluorene, CAS No. 53963;
4-Dimethylaminoazo-benzene, CAS No. 60117; and
N-Nitrosodimethylamine, CAS No. 62759.

SUBDIVISION Z

TOXIC AND HAZARDOUS SUBSTANCES

§1910.1052 Methylene Chloride.

This occupational health standard establishes requirements for employers to control occupational exposure to methylene chloride (MC). Employees exposed to MC are at increased risk of developing cancer, adverse effects on the heart, central nervous system and liver, and skin or eye irritation. Exposure may occur through inhalation, by absorption through the skin, or through contact with the skin. MC is a solvent which is used in many different types of work activities, such as paint stripping, polyurethane foam manufacturing, and cleaning and degreasing. Under the requirements of paragraph (d) of this section, each covered employer must make an initial determination of each employee's exposure to MC. If the employer determines that employees are exposed below the action level, the only other provisions of this section that apply are that a record must be made of the determination, the employees must receive information and training under paragraph (l) of this section and, where appropriate, employees must be protected from contact with liquid MC under paragraph (h) of this section. The provisions of the MC standard are as follows:

(a) Scope and application. This section applies to all occupational exposures to methylene chloride (MC), Chemical Abstracts Service Registry Number 75-09-2, in general industry, construction and shipyard employment.

(c) Permissible exposure limits (PELs).

(1) Eight-hour time-weighted average (TWA) PEL. The employer shall ensure that no employee is exposed to an airborne concentration of MC in excess of twenty-five parts of MC per million parts of air (25 ppm) as an 8-hour TWA.

(2) Short-term exposure limit (STEL). The employer shall ensure that no employee is exposed to an airborne concentration of MC in excess of one hundred and twenty-five parts of MC per million parts of air (125 ppm) as determined over a sampling period of fifteen minutes.

(d) Exposure monitoring.

(1) Characterization of employee exposure.

(i) Where MC is present in the workplace, the employer shall determine each employee's exposure by either:

(A) Taking a personal breathing zone air sample of each employee's exposure; or

(B) Taking personal breathing zone air samples that are representative of each employee's exposure.

(ii) Representative samples. The employer may consider personal breathing zone air samples to be representative of employee exposures when they are taken as follows:

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METHYLENE CHLORIDE

(3) Periodic monitoring. Where the initial determination shows employee exposures at or above the action level or above the STEL, the employer shall establish an exposure monitoring program for periodic monitoring of employee exposure to MC in accordance with Table 1:

Exposure scenario	Required monitoring activity
Below the action level and at or below the STEL	No 8-hour TWA or STEL monitoring required.
Below the action level and above the STEL	No 8-hour TWA monitoring required; monitor STEL exposures every three months.
At or above the action level, at or below the TWA, and at or below the STEL .	Monitor 8-hour TWA exposures every six months.
At or above the action level, at or below the TWA, and above the STEL	Monitor 8-hour TWA exposures every six months and monitor STEL exposures every three months.
Above the TWA and at or below the STEL	Monitor 8-hour TWA exposures every three months. In addition, without regard to the last sentence of the note to paragraph (d)(3), the following employers must monitor STEL exposures every three months until either the date by which they must achieve the 8-hour TWA PEL under paragraph (n) of this section or the date by which they in fact achieve the 8-hour TWA PEL, whichever comes first: employers engaged in polyurethane foam manufacturing; foam fabrication; furniture refinishing; general aviation aircraft stripping; product formulation; use of MC-based adhesives for boat building and repair, recreational vehicle manufacture, van conversion, or upholstery; and use of MC in construction work for restoration and preservation of buildings, painting and paint removal, cabinet making, or floor refinishing and resurfacing.
Above the TWA and above the STEL	Monitor 8-hour TWA exposures and STEL exposures every three months.

(e) Regulated areas.

(1) The employer shall establish a regulated area wherever an employee's exposure to airborne concentrations of MC exceeds or can reasonably be expected to exceed either the 8-hour TWA PEL or the STEL.

(2) The employer shall limit access to regulated areas to authorized persons.

(3) The employer shall supply a respirator, selected in accordance with paragraph (g)(3) of this section, to each person who enters a regulated area and shall require each affected employee to use that respirator whenever MC exposures are likely to exceed the 8-hour TWA PEL or STEL.

[Note to paragraph (e)(3): An employer who has implemented all feasible engineering, work practice and administrative controls (as required in paragraph (f) of this section), and who has established a regulated area (as required by paragraph (e)(1) of this section) where MC exposure can be reliably predicted to exceed the 8-hour TWA PEL or the STEL only on certain days (for example, because of work or process schedule) would need to have affected employees use respirators in that regulated area only on those days.]

(4) The employer shall ensure that, within a regulated area, employees do not engage in non-work activities which may increase dermal or oral MC exposure.

(1) Engineering and work practice controls. The employer shall institute and maintain the effectiveness of engineering controls and work practices to reduce employee exposure to or below the PELs except to the extent that the employer can demonstrate that such controls are not feasible. Wherever the feasible engineering controls and work practices which can be instituted are not sufficient to reduce employee exposure to or below the 8-TWA PEL or STEL, the employer shall use them to reduce employee exposure to the lowest levels achievable by these controls and shall supplement them by the use of respiratory protection that complies with the requirements of paragraph (g) of this section.

(2) Prohibition of rotation. The employer shall not implement a schedule of employee rotation as a means of compliance with the PELs.

(3) Leak and spill detection.

(i) The employer shall implement procedures to detect leaks of MC in the workplace. In work areas where spills may occur, the employer shall make provisions to contain any spills and to safely dispose of any MC-contaminated waste materials.

(ii) The employer shall ensure that all incidental leaks are repaired and that incidental spills are cleaned promptly by employees who use the appropriate personal protective equipment and are trained in proper methods of cleanup.

[Note to paragraph (f)(3)(ii): See Appendix A of this section for examples of procedures that satisfy this requirement. Employers covered by this standard may also be subject to the hazardous waste and emergency response provisions contained in 29 CFR 1910.120 (q).]

(g) Respiratory protection.

(1) General. For employees who use respirators required by this section, the employer must provide each employee an appropriate respirator that complies with the requirements of this paragraph. Respirators must be used during:

(i) Periods when an employee's exposure to MC exceeds the 8-hour TWA/PEL, or STEL (for example, when an employee is using MC in a regulated area).

(h) Protective Work Clothing and Equipment.

(1) Where needed to prevent MC-induced skin or eye irritation, the employer shall provide clean protective clothing and equipment which is resistant to MC, at no cost to the employee, and shall ensure that each affected employee uses it. Eye and face protection shall meet the requirements of OAR 437-002-0134(8) or 29 CFR 1915.153, as applicable.

(2) The employer shall clean, launder, repair and replace all protective clothing and equipment required by this paragraph as needed to maintain their effectiveness.

(3) The employer shall be responsible for the safe disposal of such clothing and equipment.

[Note to paragraph (h)(4): See Appendix A for examples of disposal procedures that will satisfy this requirement.]

(i) Hygiene facilities.

(1) If it is reasonably foreseeable that employees' skin may contact solutions containing 0.1 percent or greater MC (for example, through splashes, spills or improper work practices), the employer shall provide conveniently located washing facilities capable of removing the MC, and shall ensure that affected employees use these facilities as needed.

(2) If it is reasonably foreseeable that an employee's eyes may contact solutions containing 0.1 percent or greater MC (for example through splashes, spills or improper work practices), the employer shall provide appropriate eyewash facilities within the immediate work area for emergency use, and shall ensure that affected employees use those facilities when necessary.

(j) Medical surveillance.

(1) Affected employees. The employer shall make medical surveillance available for employees who are or may be exposed to MC as follows:

(i) At or above the action level on 30 or more days per year, or above the 8-hour TWA PEL or the STEL on 10 or more days per year;

(ii) Above the 8-TWA PEL or STEL for any time period where an employee has been identified by a physician or other licensed health care professional as being at risk from cardiac disease or from some other serious MC-related health condition and such employee requests inclusion in the medical surveillance program;

(iii) During an emergency.

(2) Costs. The employer shall provide all required medical surveillance at no cost to affected employees, without loss of pay and at a reasonable time and place.

(3) Medical personnel. The employer shall ensure that all medical surveillance procedures are performed by a physician or other licensed health care professional, as defined in paragraph (b) of this section.

(k) Hazard communication.

(1) Hazard communication – general.

(i) Chemical manufacturers, importers, distributors and employers shall comply with all requirements of the Hazard Communication Standard (HCS) (§ 1910.1200) for MC.

(j)(14)(ii) - (k)(1)(i)

Z-17

1910.1052

Z METHYLENE CHLORIDE

Oregon Administrative Rules
Oregon Occupational Safety
and Health Division

(ii) In classifying the hazards of MC at least the following hazards are to be addressed: Cancer, cardiac effects (including elevation of carboxyhemoglobin), central nervous system effects, liver effects, and skin and eye irritation.

(iii) Employers shall include MC in the hazard communication program established to comply with the HCS (§ 1910.1200). Employers shall ensure that each employee has access to labels on containers of MC and to safety data sheets, and is trained in accordance with the requirements of HCS and paragraph (l) of this section.

(2) [Reserved]

(l) Employee information and training.

(1) The employer shall provide information and training for each affected employee prior

Emergency Medical Pro

Medical Plan

Emergency eye wash

Emergency eye Wash -
shower units

Specialty treatment -
first aid kits



Skin contact

: Remove the victim from the contaminated area and immediately wash the burned area with plenty of water for a

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SAFETY DATA SHEET

Honeywell

Hydrogen fluoride (100 %)

10184963

Version 4.9

Revision Date 10/26/2020

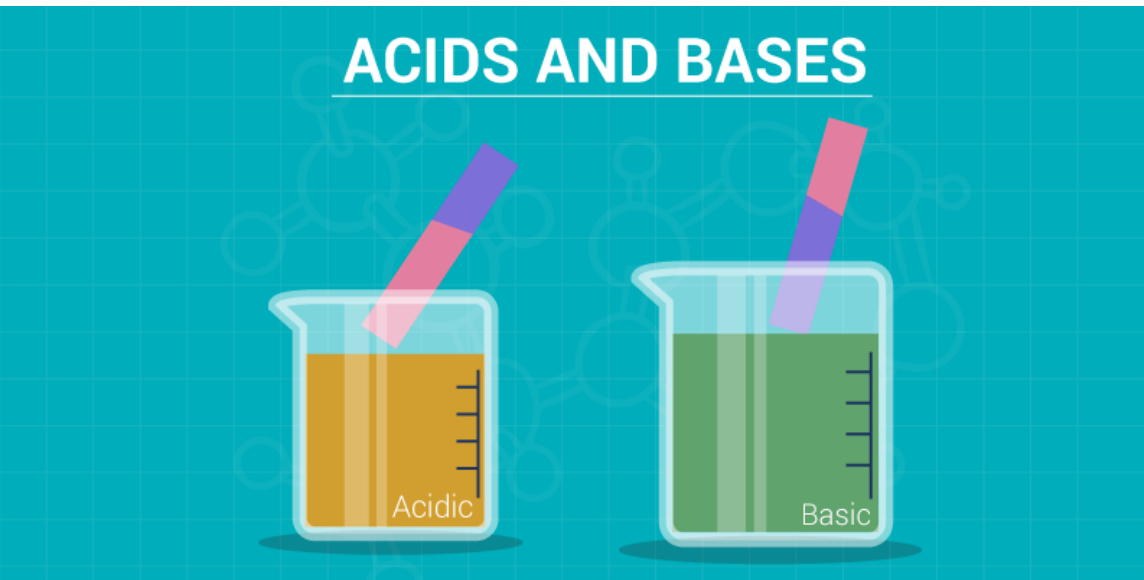
Print Date 09/09/2023

minimum of 15 minutes. Limit washing to 5 minutes if treatment specific for HF exposure is available. Remove all contaminated clothing while washing continuously. After thorough washing for at least 5 minutes, the burned area should be immersed in a solution of 0.13% iced aqueous Benzalkonium Chloride until pain is relieved. As an alternate first aid treatment, 2.5% calcium gluconate gel may be continuously massaged into the burn area until the pain is relieved. For burns not responsive to topical treatment (as measured by pain being present for longer than 30 minutes) a physician may inject 2.5% - 5% aqueous calcium gluconate beneath, around and in the burned area. Use of local anesthetics is not recommended, as

Material Storage Requirements

reflectorized signs ineffective, the sign shall be lighted or other effective warning shall be used;

(d) Materials which could cause hazardous reactions shall be kept segregated in storage and marked with appropriate warning signs.



STORAGE GROUPS	
Store chemicals in separate secondary containment and cabinets	
A	Compatible Organic Bases
B	Compatible Pyrophoric & Water-Reactive Materials
C	Compatible Inorganic Bases
D	Compatible Organic Acids
E	Compatible Oxidizers including Peroxides
F	Compatible Inorganic Acids not including Oxidizers or Combustible
G	Not Intrinsically Reactive or Flammable or Combustible
J*	Poison Compressed Gases
K*	Compatible Explosive or other highly Unstable Material
L	Non-Reactive Flammable and Combustible, including solvents
X*	Incompatible with ALL other storage groups

*Storage Groups J, K, and X: Consult EHS Department. For specific storage, consult manufacturer's MSDS.

