CHAPTER 5206
DEPARTMENT OF LABOR AND INDUSTRY
EMPLOYEE RIGHT-TO-KNOW STANDARDS

5206.0100 DEFINITIONS.

Subpart 1. **Scope.** For purposes of this chapter the following terms have the meanings given them.

Subp. 1a. **Blood borne pathogens.** "Blood borne pathogens" means pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

Subp. 1b. **Carcinogen.** "Carcinogen" means any substance that causes the development of cancerous growths in living tissue. For the purpose of this standard, a substance is considered to be a carcinogen or potential carcinogen if:

A. it has been evaluated by the International Agency for Research on Cancer (IARC) and is listed as a carcinogen or potential carcinogen in "Monographs" (latest edition);

B. it is listed as a carcinogen or potential carcinogen in the "Annual Report on Carcinogens" published by the National Toxicology Program (NTP) (latest edition);

C. it is listed as a confirmed or suspected human carcinogen by the American Conference of Governmental Industrial Hygienists (ACGIH) and published in the "Threshold Limit Values and Biological Exposure Indices" (latest edition); or

D. it is regulated as a carcinogen or potential carcinogen under Code of Federal Regulations, title 29, part 1910, subpart Z, "Toxic and Hazardous Substances."

Subp. 1c. **Clinic.** "Clinic" means a physician's office providing outpatient care.

Subp. 2. **Commissioner.** "Commissioner" means the commissioner of the Department of Labor and Industry.

Subp. 2a. **Container.** "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 part, pipes, piping systems, or pipelines are not considered to be containers.

Subp. 3. **Data sheet.** "Data sheet" means a document, such as a material safety data sheet, operation standard, placard or display device, used by an employer to communicate to an employee the information required under Minnesota Statutes, section 182.653, subdivisions 4b, 4c, and 4e.

Subp. 3a. **Dentist.** "Dentist" means a person licensed to practice dentistry under Minnesota Statutes, sections 150A.01 to 150A.12. Dentist does not include a student in this field, a dental technician, dental hygienist, dental assistant, or a registered dental assistant.

Subp. 4. **Department.** "Department" means the Department of Labor and Industry.

Subp. 5. **Display device.** "Display device" means a video screen or video display terminal that is part of electronic data processing equipment.

Subp. 6. **Harmful physical agent.** "Harmful physical agent" means a physical agent determined by the commissioner as part of the standard for that agent to present a significant risk to worker health or safety or imminent danger of death or serious physical harm to an employee.

"Harmful physical agent" does not include an agent being developed or utilized by a technically qualified individual in a research, medical research, medical diagnostic, or medical educational laboratory, or in a health care facility or in a clinic associated with the laboratory or health care facility, or in a pharmacy registered and licensed under Minnesota Statutes, chapter 151. This exemption does not include a physical agent utilized in a laboratory that primarily provides a quality control analysis for a manufacturing process. This exemption applies only to technically qualified individuals and not to persons working in the same work area who are not technically qualified individuals.

Subp. 7. **Hazardous substance.** "Hazardous substance" means a chemical or substance, or mixture of chemicals or substances, which:

A. is regulated by the federal Occupational Safety and Health Administration under Code of Federal Regulations, title 29, part 1910, subpart Z;

B. is either toxic or highly toxic, an irritant, corrosive, a strong oxidizer, a strong sensitizer, combustible, either flammable or extremely flammable, dangerously reactive, pyrophoric, pressure-generating, a compressed gas, a carcinogen, a teratogen, a mutagen, a reproductive toxic agent, or that otherwise, according to generally accepted documented medical or scientific evidence, may cause substantial acute or chronic personal injury or illness during or as a direct result of any customary or reasonably foreseeable accidental or intentional exposure to the chemical or substance; or

C. is determined by the commissioner as part of the standard for the chemical or substance or mixture of chemicals and substances to present a significant risk to worker health and safety or imminent danger of death or serious physical harm to an employee as a result of foreseeable use, handling, accidental spill, exposure, or contamination.

Hazardous substance does not include a substance being developed or handled by a technically qualified individual in a research, medical research, medical diagnostic or medical educational laboratory or in a health care facility or in a clinic associated with the laboratory or health care facility, or in a pharmacy registered or licensed under Minnesota Statutes, chapter 151. This exemption applies only to technically qualified individuals and not to persons working in the same work area who are not technically qualified individuals.

Subp. 7a. **Hazard warning.** "Hazard warning" means any words, pictures, symbols, or combination of these which convey the hazards of the hazardous substances in the containers.

Subp. 8. **Health care facility.** "Health care facility" means a provider of health services in an establishment such as, but not limited to, a clinic, hospital, nursing home, intermediate care facility, extended care facility, convalescent home, surgical center, treatment center, group home, medical office, or dental office, whether fixed or mobile.

Subp. 9. **Impurity.** "Impurity" means a hazardous substance which is unintentionally present with another substance or mixture.

Subp. 10. **Immediate-use container.** "Immediate-use container" means a container into which substances are transferred from labeled containers and which 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. This applies to containers such as test tubes, beakers, graduates, vials, pitchers, pails, or similar containers which are routinely used and reused.

Subp. 11. **Infectious agent.** "Infectious agent" means a communicable bacterium, rickettsia, parasites, virus, or fungus determined by the commissioner by rule, with approval of the commissioner of health, which according to documented medical or scientific evidence causes substantial acute or chronic illness or permanent disability as a foreseeable and direct result of any routine exposure to the infectious agent.

Infectious agents that are present in human blood and can cause disease in humans are also called blood borne pathogens.

Infectious agent does not include an agent in or on the body of a patient before diagnosis. Infectious agent does not include an agent being developed or regularly used by a technically qualified individual in a research, medical research, medical diagnostic or medical educational laboratory or in a health care facility or in a clinic associated with a laboratory or

health care facility, or in a pharmacy registered and licensed under Minnesota Statutes, chapter 151.

Subp. 11a. **Laboratory use of hazardous chemicals.** "Laboratory use of hazardous chemicals" means handling or use of hazardous chemicals in which all of the following conditions are met:

A. chemical manipulations are carried out on a laboratory scale (where the containers used for reactions, transfers, and other handling of substances are designed to be easily and safely manipulated by one person);

B. multiple chemical procedures or chemicals are used;

C. the procedures involved are not part of a production process, nor in any way simulate a production process; and

D. protective laboratory practices and equipment are available and in common use to minimize the potential for employee exposure to hazardous chemicals.

Subp. 11b. **Lead research individual.** "Lead research individual" means the laboratory director, lead chemist, or project engineer who, because of professional or technical education, training, or experience understands, before the time of exposure, the health risks and the necessary safety precautions associated with each hazardous substance, harmful physical agent, infectious agent, or mixture handled or used in the laboratory and is responsible for the safety and health of all individuals working in the laboratory.

Subp. 12. **Manufacturer.** "Manufacturer" means anyone who produces, synthesizes, extracts, or otherwise makes, processes, blends, packages, or repackages a hazardous substance or equipment which generates a harmful physical agent. The term manufacturer also includes anyone who imports into this state or distributes within this state a hazardous substance or equipment which generates a harmful physical agent. It does not include anyone whose primary business concerning the hazardous substance or equipment is in retail sales to the public.

Subp. 13. **Material safety data sheet.** "Material safety data sheet" means any data sheet which contains information required under part 5206.0700, subpart 2, or in accordance with Code of Federal Regulations, title 29, part 1910.1200(g), regarding the physical, chemical, and hazardous properties of a substance or mixture.

Subp. 14. **Mixture.** "Mixture" means any combination of two or more chemical substances that do not react with each other, but at least one of which is a hazardous substance. Mixtures may be considered as a single hazardous substance if the technical data provided for the mixture as a whole is as effective in protecting employee health as data on each of the individual components would be.

Subp. 14a. **Original shipping container.** "Original shipping container" means the container in which a hazardous substance is received by the employer from the manufacturer.

Subp. 14b. **Pharmacist.** "Pharmacist" means a person with a currently valid license issued by the Board of Pharmacy to practice pharmacy under Minnesota Statutes, chapter 151. Pharmacist does not include a student in this field nor a pharmacist intern.

Subp. 14c. **Physician.** "Physician" means a person issued a license to practice medicine under Minnesota Statutes, chapter 147. Physician does not include a student in continuing training and performing the duties of an intern or resident or engaged in postgraduate work considered by the Board of Medical Practice to be the equivalent of an internship or residency in any hospital or institution approved for training by the board.

Subp. 15. [Repealed, 13 SR 2219]

Subp. 16. **Research laboratory.** "Research laboratory" means a medical, educational, industrial, or manufacturing workplace, or portion of such a workplace, engaged in the development of materials, products, or substances through experimentation, testing, or analysis. Research laboratory includes pilot plant operations performed as research and development functions including tests of physical, chemical, production, and performance characteristics.

Subp. 16a. **Responsible party.** "Responsible party" means someone who can provide additional information on the hazardous substance and appropriate emergency procedures, if any.

Subp. 17. **Routinely exposed.** "Routinely exposed" means a reasonable potential for exposure exists during the normal course of assigned work. It includes the exposure of an employee to a hazardous substance when assigned to work in an area where a hazardous substance has been spilled. It does not include a simple walk-through of an area where a hazardous substance, harmful physical agent, or infectious agent is present or an assignment to work in an area where a container of a hazardous substance is present but there is no actual exposure unless a spill should occur.

Subp. 18. [Repealed, 13 SR 2219]

Subp. 19. **Technically qualified individual.** "Technically qualified individual" means a physician, dentist, pharmacist, or lead research individual, other than a student in one of these fields, in a research, medical research, medical diagnostic or medical educational laboratory or in a health care facility or in a clinic associated with the laboratory or health care facility, or in a pharmacy registered and licensed under Minnesota Statutes, chapter 151, who, because of professional or technical education, training, or experience, understands, before the time of exposure, the health risks and the necessary safety precautions associated with each hazardous substance, harmful physical agent, infectious agent, or mixture handled or used by the person.

Statutory Authority: *MS s 182.655*

History: *8 SR 1949; 13 SR 2219; 17 SR 1456*

5206.0200 PURPOSE.

The standards in this chapter implement the provisions of the Employee Right-to-Know Act of 1983. These standards require employers to evaluate their workplaces for the existence of hazardous substances, harmful physical agents, and infectious agents and to provide training and information to those employees covered under this act who are routinely exposed to those substances and agents.

Statutory Authority: *MS s 182.655*

History: *8 SR 1949*

5206.0300 SCOPE; EXCEPTIONS.

Subpart 1. **In general.** The provisions in this chapter apply to all employers and employees in Minnesota with the following exceptions.

Subp. 2. **Technically qualified individuals.** Certain technically qualified individuals who meet the definition of physician, dentist, pharmacist, or lead research individual in part 5206.0100, subparts 3a, 11b, 14b, and 14c, are exempt from the provisions of this chapter, with the exception of part 5206.0700, subpart 1, item J. Technically qualified individuals are not exempt from the requirements of any other OSHA standard. Technically qualified individuals may only be designated in the following facilities: research laboratory, medical research laboratory, medical diagnostic or medical educational laboratory, health care facility, clinic associated with a laboratory or health care facility, or pharmacy registered and licensed under Minnesota Statutes, chapter 151.

Subp. 3. **Farms.** Farming operations employing ten or fewer employees are exempt from all provisions of this chapter except that label information must be furnished to employees or their representative. Farming operations employing more than ten employees or that operate a temporary labor camp and employ any of its residents are required to comply with training requirements developed by the commissioner specifically for farming operations in parts 5206.1300 to 5206.1900.

Subp. 4. [Repealed, 13 SR 2219]

Subp. 5. [Repealed, 17 SR 1456]

Subp. 6. **Waste service employers.** Employers that provide a service of collecting, processing, or disposing of waste regulated under the federal Resource Conservation and Recovery Act are exempt from the hazardous substances and harmful physical agents training and information requirements of this chapter. These employers must develop and implement a training program for their employees and have that program approved by the commissioner.

Subp. 7. **Laboratories.**

A. Laboratories where the laboratory use of hazardous chemicals occurs must comply with the requirements of Code of Federal Regulations, title 29, section 1910.1450.

B. All other laboratories shall comply with chapter 5206.

Statutory Authority: *MS s 182.655*

History: *8 SR 1949; 13 SR 2219; 17 SR 1456*

5206.0400 HAZARDOUS SUBSTANCES.

Subpart 1. **In general.** The commissioner has determined that the list of hazardous substances in subpart 5 shall be covered by the provisions of this chapter. The hazardous substance list includes the majority of hazardous substances that will be encountered in Minnesota; it does not include all hazardous substances and will not always be current. Employers shall exercise reasonable diligence in evaluating their workplace for the presence of other recognized hazardous substances and assure that employees are provided with the rights stated in this chapter.

Subp. 2. **Exemptions.** Substances or mixtures within the categories in items A to K are exempt from coverage under this standard.

A. Products intended for personal consumption by employees in the workplace.

B. Consumer products packaged for distribution to, and used by, the general public, including any product used by an employer or the employer's employees in the same form, concentration, and manner as it is sold to consumers, and to the employer's knowledge, employee exposure is not significantly greater than the consumer exposure occurring during principal consumer use of the product.

C. Any article, including but not limited to an item of equipment or hardware, which contains a hazardous substance, if the substance is present in a solid form which does not create a health hazard as a result of being handled by the employee.

D. Any hazardous substance that is bound and not released under normal conditions or work or in a reasonably foreseeable occurrence resulting from workplace operations.

E. Products sold or used in retail food sale establishments and all other retail trade establishments, exclusive of processing and repair work areas.

F. Any waste material regulated pursuant to the federal Resource Conservation and Recovery Act, Public Law Number 94–580, but only with respect to any employer in a business which provides a service of collection, processing, or disposal of such waste.

G. Waste products labeled pursuant to the Resource Conservation and Recovery Act. If hazardous substances make up the waste product, the employer must assure that mixing of incompatible substances does not occur.

H. Any substance received by an employer in a sealed package and subsequently sold or transferred in that package, if the seal remains intact while the substance is in the employer's workplace.

I. Any substance, mixture, or product if present in a physical state, volume, or mixture concentration for which there is no valid and substantial evidence that a significant risk to human health may occur from exposure.

J. "Liquor" as defined in Minnesota Statutes, section 340.07, subdivision 2, or "3.2 percent malt liquor" as defined in Minnesota Statutes, section 340A.101, subdivision 19.

K. "Food" as defined in the Federal Food, Drug, and Cosmetic Act, United States Code, title 27, section 321, et seq.

Subp. 3. **Updating list.** The list of hazardous substances shall be updated by the commissioner at least every two years.

Subp. 4. **Codes for list of hazardous substances.** The list of hazardous substances in subpart 5 is coded as follows to designate the reference document which contains occupational exposure information concerning the particular substance:

A. "A" – American Conference of Governmental Industrial Hygienists (ACGIH), "Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices for 1992–93," available from ACGIH, 6500 Glenway Avenue, Building D–7, Cincinnati, Ohio 45211–4438, (513) 661–7881.

B. "I" – American Industrial Hygiene Association (AIHA), "Workplace Environmental Exposure Level Guides" (1992), available from AIHA, P.O. Box 8390, Akron, Ohio

44320, (216) 873–2442. Effective October 31, 1992, the new mailing address will be: 2700 Prosperity Place, Merrifield, VA 22081.

C. "N" – National Institute for Occupational Safety and Health (NIOSH), "Recommendations for Occupational Safety and Health Standards," August 1988, available from NIOSH, Publications Dissemination Office, Division of Standards Development and Technology Transfer, 4676 Columbia Parkway, Cincinnati, Ohio 45226, general information (513) 533–8287.

D. "O" – Occupational Safety and Health Administration (OSHA), Safety and Health Standards, Code of Federal Regulations, title 29, part 1910, subpart Z, "Toxic and Hazardous Substances, 1990." General information: Minnesota Department of Labor and Industry, Occupational Safety and Health Division, 443 Lafayette Road, St. Paul, Minnesota 55101, (612) 296–2116.

E. "R" – International Agency for Research on Cancer (IARC) Monographs on the Evaluation of the Carcinogenic Risks to Humans; Overall Evaluations of Carcinogenicity: An Updating of IARC Monographs Volumes 1 to 42, Supplement 7 (1987). Available from: WHO Publications Centre USA, 49 Sheridan Avenue, Albany, NY 12210; (518) 436–9686.

F. "S" – Occupational Safety and Health Administration proposed standards.

G. "T" – National Toxicology Program (NTP) "Fifth Annual Report on Carcinogens," 1989 (NTP 89–239). Order information: (919) 541–3991.

H. "*" – An asterisk denotes substances which are regulated by OSHA as carcinogens; have been categorized by the ACGIH as either "human carcinogens" or "suspect of carcinogenic potential for man"; have been evaluated by the International Agency for Research on Cancer (IARC) and found to be carcinogens or potential carcinogens; or have been listed as a carcinogen or potential carcinogen in the Annual Report on Carcinogens published by the National Toxicology Program (NTP).

I. "Dust" – If the substance poses an airborne particulate exposure hazard, the substance is followed by the word, "dust."

J. "Fume" – Small solid particles formed by the condensation of vapors of solid materials.

K. "Gases" – Refers to displacement of air asphyxiation hazard.

L. "Skin" – If a potential for absorption from skin contact merits special consideration, the word, "skin" follows the substance name.

M. (number) – The number in parentheses following each substance is the American Chemical Society's Chemical Abstract Service (CAS) number for that substance. A particular substance may be known by more than one name. The CAS number eliminates the confusion caused by synonyms.

N. α = Alpha.

O. β = Beta.

Subp. 5. **List of hazardous substances.** List of hazardous substances:

A. Hazardous substances beginning with the letter A:

(1)	Abate (see Temephos)	
(2)	*A–α–C (2–Amino–9H–pyrido[2,3–b]indole)	R
(3)	*Acetaldehyde (75–07–0)	AO
(4)	*Acetamide	R
(5)	Acetic acid (64–19–7)	AO
(6)	Acetic anhydride (108–24–7)	AO
(7)	Acetone (67–64–1)	AON
(8)	Acetone cyanohydrin (75–86–5)	IN
(9)	Acetonitrile–skin (75–05–8)	ANO
(10)	Acetophenone (98–86–2)	AI
(11)	*2–Acetylaminoflourene (53–96–3)	ONT
(12)	Acetylene (74–86–2)	AN
(13)	Acetylene dichloride (see 1,2–Dichloroethylene)	
(14)	Acetylene tetrabromide (79–27–6)	AO
(15)	Acetylsalicylic acid (Aspirin) (50–78–2)	A

(16)	Acrolein (107–02–8)	AO
(17)	*Acrylamide–skin (79–06–1)	ANOR
(18)	Acrylic acid (79–10–7)	A
(19)	*Acrylonitrile–skin (107–13–1)	ANORT
(20)	*Actinomycin D (50–76–0)	R
(21)	Adipic acid (124–04–9)	A
(22)	Adiponitrile (111–69–3)–skin	A
(23)	*Adriamycin (23214–92–8)	RT
(24)	*AF–2 [2–(2–furyl)–3–(5–nitro–2–furyl) acrylamide] (3688–53–7)	R
(25)	*Aflatoxins (1402–68–2)	RT
(26)	Alkanes	N
(27)	*Aldrin–skin (309–00–2)	AN
(28)	Allyl alcohol–skin (107–18–6)	AO
(29)	*Allyl chloride (107–05–1)	ANO
(30)	Allyl glycidyl ether (AGE)–skin (106–92–3)	ANO
(31)	Allyl isothiocyanate–skin (57–06–7)	I
(32)	Allyl propyl disulfide (2179–59–1)	AO
(33)	a–Alumina (1344–28–1)	A
(34)	Aluminum pyro powders (7429–90–5)	A
(35)	Aluminum welding fumes (7429–90–5)	A
(36)	Aluminum, soluble salts (7429–90–5)	A
(37)	Aluminum, metal dust (7429–90–5)	A
(38)	Aluminum oxide (1344–28–1)	A
(39)	Aluminum, alkyls (7429–90–5)	A
(40)	*2–Aminoanthraquinone (117–79–3)	T
(41)	*para–Aminoazobenzene	R
(42)	*ortho–Aminoazotoluene	R
(43)	p–Aminobenzoic acid (150–13–0)	I
(44)	Aminobiphenyl (see 4–Aminodiphenyl)	
(45)	*4–Aminodiphenyl–skin (92–67–1)	ANOT
(46)	2–Aminoethanol (see Ethanolamine)	
(47)	*1–Amino–2–methylanthraquinone (82–28–0)	T
(48)	*2–Amino–5–(5–nitro–2–furyl)–1,3,4–thiadiazole	R
(49)	2–Aminopyridine (504–29–0)	AO
(50)	3–Amino 1,2,4–triazole (see Amitrole)	
(51)	*Amitrole (61–82–5)	ART
(52)	Ammonia (7664–41–7)	ANOS
(53)	Ammonium chloride, fume (12125–02–9)	A
(54)	Ammonium perfluorooctanoate–skin (3825–26–1)	A
(55)	Ammonium sulfamate (7773–06–0)	AO
(56)	n–Amyl acetate (628–63–7)	AO
(57)	sec–Amyl acetate (626–38–0)	AO
(58)	*Analgesic mixture containing phenacetin	R
(59)	*Aniline and homologues–skin (62–53–3)	AO
(60)	*Anisidine (o–p isomers)–skin (29191–52–4)	AOT
(61)	*o–Anisidine hydrochloride (134–29–2)	T
(62)	*Anthracene oils	R
(63)	Antimony and compounds, as Sb (7440–36–0)	ANO
(64)	*Antimony trioxide, handling and use, as Sb production (1309–64–4)	A
(65)	ANTU (α–Naphthyl thiourea) (86–88–4)	AO
(66)	*Aramite® (140–57–8)	R
(67)	Argon (7440–37–1)	A
(68)	*Arsenic, elemental inorganic,	

	and organic compounds, as As (7440–38–2)	ANORT
(69)	Arsine (7784–42–1)	ANO
(70)	*Asbestos (all forms) (1332–21–4)	ANORT
(71)	Asphalt (petroleum) fumes (8052–42–4)	AN
(72)	Atrazine (1912–24–9)	A
(73)	*Auramine (technical grade) (492–80–8)	R
(74)	*Azaserine	R
(75)	*Azathioprine (446–86–6)	RT
(76)	Azinphos–methyl–skin (86–50–0)	AO
	B. Hazardous substances beginning with the letter B:	
(1)	Barium, soluble compounds, as Ba (7440–39–3)	AO
(2)	Barium, sulfate (7727–43–7)	A
(3)	Baygon (Propoxur) (114–26–1)	A
(4)	Baytex (see Fenthion)	
(5)	Benomyl (17804–35–2)	A
(6)	*Benz[a]anthracene (56–55–3)	ART
(7)	Benzaldehyde (100–52–7)	I
(8)	*Benzene (71–43–2)	ANORT
(9)	Benzenethiol (108–98–5)	N
(10)	*Benzidine–based dyes	N
(11)	*Benzidine–skin (92–87–5)	AONRT
(12)	*Benzo[b]fluoranthene (205–99–2)	ART
(13)	*Benzo[j]fluoranthene (205–82–3)	R
(14)	*Benzo[k]fluoranthene (207–08–9)	R
(15)	Benzophenone	I
(16)	p–Benzoquinone (see Quinone)	
(17)	*Benzotrichloride (98–07–7)	RT
(18)	Benzoyl chloride (98–88–4)	IN
(19)	Benzoyl peroxide (94–36–0)	ANO
(20)	*Benzo[a]pyrene (50–32–8)	ART
(21)	Benzyl acetate (140–11–4)	A
(22)	Benzyl alcohol	I
(23)	*Benzyl chloride (100–44–7)	ANO
(24)	*Benzyl violet 4B	R
(25)	*Beryllium (and compounds) (7440–14–7)	ANMORT
(26)	Biphenyl (Diphenyl) (92–52–4)	AO
(27)	*N,N–Bis (2–chloroethyl)–2–naphthylamine (chlornaphazine) (49–40–31)	R
(28)	*Bischloroethyl nitrosourea (BCNU) (154–93–8)	RT
(29)	Bis–(2–chloroisopropyl) ether (108–60–1)	I
(30)	*Bischloromethyl ether and technical grade chloromethyl methyl ether (BCME) (542–88–1) and (107–30–2)	AORT
(31)	Bismuth telluride (1304–82–1)	A
(32)	Bismuth telluride; Se–doped (1304–82–1)	A
(33)	*Bitumens (8052–42–4) (extracts of steam–refined, air–refined, and pooled mixtures of steam and air refined)	R
(34)	*Bleomycins	R
(35)	Borates, tetra, sodium salts (1303–96–4) Anhydrous Decahydrate Pentahydrate	A
(36)	Boron oxide (1303–86–2)	AO

(37)	Boron tribromide (10294–33–4)	A
(38)	Boron trifluoride (7637–07–2)	ANO
(39)	Bromacil (314–40–9)	A
(40)	Bromine (7726–95–6)	AO
(41)	Bromine pentafluoride (7789–30–2)	A
(42)	Bromochloromethane (see Chlorobromomethane)	
(43)	Bromoform–skin (75–25–2)	AO
(44)	Bromotrifluoromethane (see Trifluorobromomethane)	
(45)	*Butadiene (1,3–Butadiene) (106–99–0)	ANOR
(46)	Butane (106–97–8)	A
(47)	Butanethiol (see Butyl mercaptan)	
(48)	*1,4–Butanediol dimethylsulfonate (Myleran) (55–98–1)	RT
(49)	2–Butanone (see Methyl Ethyl Ketone (MEK))	
(50)	2–Butoxyethanol(EGBE)–skin (111–76–2)	AO
(51)	n–Butyl acetate (123–86–4)	AO
(52)	sec–Butyl acetate (105–46–4)	AO
(53)	tert–Butyl acetate (540–88–5)	AO
(54)	Butyl acrylate (141–32–2)	A
(55)	n–Butyl alcohol–skin (71–36–3)	AO
(56)	sec–Butyl alcohol (78–92–2)	AO
(57)	tert–Butyl alcohol (75–65–0)	AO
(58)	Butylamine–skin (109–73–9)	AO
(59)	*Butylated hydroxyanisole (BHA)	R
(60)	Butyl cellosolve (see 2–Butoxy ethanol)	
(61)	4–tert Butylcatechol	I
(62)	tert–Butyl chromate, as CrO_3–skin (1189–85–1)	AO
(63)	Butylene oxide (106–99–9) and (106–88–7)	I
(64)	n–Butyl glycidyl ether (BGE) (2426–08–6)	AO
(65)	n–Butyl lactate (138–22–7)	A
(66)	Butyl mercaptan (109–79–5)	ANO
(67)	o–sec–Butylphenol–skin (89–72–5)	A
(68)	p–tert–Butyltoluene (98–51–1)	AO
(69)	Butyraldehyde	I
(70)	*β–Butyrolactone	R
(71)	n–Butyronitrile (109–74–0)	N

C. Hazardous substances beginning with the letter C:

(1)	Cadmium (7440–43–9) and its compounds (as Cd)	ANRT
(2)	*Cadmium (7440–43–9), dust and salts (as Cd), fume	ANO
(3)	Cadmium oxide (1306–19–0), fume (as Cd)	ANO
(4)	*Cadmium oxide production (as Cd)	A
(5)	Calcium carbonate (1317–65–3)	A
(6)	*Calcium chromate, (as Cr) (13765–19–0)	A
(7)	Calcium cyanamide (156–62–7)	A
(8)	Calcium hydroxide (1305–62–0)	A
(9)	Calcium oxide (1305–78–8)	AO
(10)	Calcium silicate (synthetic) (1344–95–2)	A
(11)	Calcium sulfate (7778–18–9)	A
(12)	Camphor, synthetic (76–22–2)	AO
(13)	Caprolactam, dust and vapor (105–60–2)	A
(14)	Captafol–skin (2425–06–1)	A
(15)	Captan (133–06–2)	A
(16)	Carbaryl (Sevin®) (63–25–2)	ANO
(17)	Carbofuran (Furadan) (1563–66–2)	A

(18)	*Carbon black (1333–86–4)	ANOR
(19)	Carbon dioxide (124–38–9)	ANO
(20)	Carbon disulfide–skin (75–15–0)	ANO
(21)	Carbon monoxide (630–08–0)	ANO
(22)	Carbon tetrabromide (558–13–4)	A
(23)	*Carbon tetrachloride–skin (56–23–5)	ANORT
(24)	Carbonyl chloride (see Phosgene)	
(25)	Carbonyl fluoride (353–50–4)	A
(26)	*Carrageenan, degraded (9000–07–01)	R
(27)	Catechol–skin (120–80–9)	A
(28)	Cellosolve acetate (see 2–Ethoxyethyl acetate)	
(29)	Cellulose (paper fiber) (9004–34–6)	A
(30)	*Certain combined chemotherapy for lymphomas (including MOPP)	RT
(31)	Cesium hydroxide (21351–79–1)	A
(32)	*Chlorambucil (305–03–3)	RT
(33)	*Chloramphenicol (56–75–7)	IR
(34)	*Chlordane–skin (57–74–9)	AO
(35)	*Chlordecone (KEPONE) (143–50–0)	NRT
(36)	*Chlorendic acid (115–28–6)	T
(37)	*Chlorinated camphene (Toxaphene)–skin (8001–35–2)	AOT
(38)	Chlorinated diphenyl oxide (31242–93–0)	AOT
(39)	*Chlorinated paraffins (C_{12}, 60% Chlorine) (108171–26–2)	T
(40)	*α–Chlorinated toluenes	R
(41)	Chlorine (7782–50–5)	ANO
(42)	Chlorine dioxide (10049–04–4)	AO
(43)	Chlorine trifluoride (7790–91–2)	AO
(44)	Chloroacetaldehyde (107–20–0)	AO
(45)	Chloroacetone–skin (78–95–5)	A
(46)	α–Chloroacetophenone (Phenacylchloride) (532–27–4)	AO
(47)	Chloroacetyl chloride–skin (79–04–9)	A
(48)	Chlorobenzene (Monochlorobenzene) (108–90–7)	AO
(49)	o–Chlorobenzylidene malononitrile (OCBM)–skin (2698–41–1)	AO
(50)	Chlorobromomethane (74–97–5)	AO
(51)	2–Chloro–1,3–butadiene (see β–Chloroprene)	
(52)	Chlorodifluoromethane (75–45–6)	A
(53)	*Chlorodiphenyl–skin (PCB) 42% Chlorine (53469–21–9) 54% Chlorine (11097–69–1)	AORT
(54)	1–Chloro,2,3–epoxy–propane (see Epichlorohydrin)	
(55)	Chloroethane (75–00–3)	N
(56)	2–Chloroethanol (see Ethylene chlorohydrin)	
(57)	Chloroethylene (see Vinyl chloride)	
(58)	*1–(2–chloroethyl)–3–cyclohexyl–1–nitrosourea (CCNU) (13010–47–4)	RT
(59)	*1–(2–chloro ethyl)–3–(4–methylcyclohexyl)–1–nitrosourea (methyl–CCNU)	R
(60)	*Chloroform (67–66–3)	ANORT
(61)	bis (2–Chloroisopropyl) ether (108–60–1)	I
(62)	*bis (Chloromethyl) ether (BCME) (542–88–1)	ANO
(63)	*Chloromethyl methyl ether (see Methyl chloromethyl ether)	

(64)	*3–Chloro–2–methylpropene (563–47–3)	T
(65)	1–Chloro–1–nitropropane (600–25–9)	AO
(66)	*4–Chloro–o–phenylenediamine (95–83–0)	RT
(67)	Chloropentafluoroethane (76–15–3)	A
(68)	*Chlorophenols (95–57–8; 106–48–9)	R
(69)	*Chlorophenoxy herbicides	R
(70)	Chloropicrin (Trichloronitromethane) (76–06–2)	AO
(71)	*para–Chloro–ortho–toluidine	R
(72)	*β–Chloroprene–skin (126–99–8)	ANO
(73)	2–Chloropropionic acid–skin (598–78–7)	A
(74)	o–Chlorostyrene (2039–87–4)	A
(75)	Chlorosulfonic acid (7790–94–5)	I
(76)	o–Chlorotoluene–skin (95–49–8)	A
(77)	2–Chloro–6–(trichloromethyl) pyridine (see Nitrapyrin)	
(78)	Chloropyrifos–skin (2921–88–2)	A
(79)	Chlorotrifluoroethylene (79–38–9)	I
(80)	*Chromates of lead (7758–97–6), zinc (14018–95–2), calcium (13765–19–0), and strontium (7789–06–2)	ART
(81)	Chromic acid (7738–94–5)	NO
(82)	*Chromite ore processing (Chromate), as Cr	A
(83)	Chromium metal (7440–47–3)	AO
(84)	Chromium (II) compounds, as Cr	A
(85)	Chromium (III) compounds, as Cr	A
(86)	*Chromium (VI) compounds, as Cr (water soluble)	ANO
(87)	*Chromium (VI) compounds	AN
(88)	*Chromium (VI) compounds, (certain water insoluble ones)	ANORT
(89)	*Chromyl chloride (14977–61–8)	A
(90)	*Chrysene (218–01–9)	AN
(91)	Chrysotile (see Asbestos)	
(92)	*C.I. Basic Red 9 Monohydrochloride (569–61–9)	T
(93)	*Cisplatin (15663–27–1)	R
(94)	*Citrus Red No. 2	R
(95)	Clopidol (2971–90–6)	A
(96)	Coal, dust	AO
(97)	*Coal tars, coal tar pitches, and coal tar pitch volatiles (as benzene solubles) (65996–93–2)	ANORT
(98)	Cobalt (as Co) metal dust and fume (7440–48–4)	ANO
(99)	Cobalt carbonyl, (as Co) (10210–68–1)	A
(100)	Cobalt, elemental and inorganic compounds, as Co (7440–48–4)	A
(101)	Cobalt hydrocarbonyl, (as Co) (16842–03–8)	A
(102)	*Coke oven emissions	NOT
(103)	*Combined oral contraceptives (compound(s) responsible for the carcinogenic effect in humans cannot be specified. Individual compounds in combined oral contraceptives include: ethinyl–oestradiol, mestranol, chlormadinone, acetate, dimethisterone, ethynodiol, diacetate, lynoestrenol, megestrol acetate, norethisterone, norethynodrel, and norgestrel)	R

(104)	*Conjugated estrogens (Conjugated estrogens are an amorphous mixture containing naturally occurring forms of mixed estrogens, principally sodium estrone sulfate and sodium equilan sulfate)	RT
(105)	Copper dust and mists, (as Cu) (7440–50–8)	AO
(106)	Copper fume (7440–50–8)	AO
(107)	Cotton dust, raw	ANO
(108)	Crag® herbicide (see Sodium–2,4–dichloro–pnenoxyethyl sulfate)	
(109)	*Creosotes (8001–58–9)	R
(110)	*p–Cresidine (120–71–8)	RT
(111)	Cresol, all isomers–skin (1319–77–3)	ANO
(112)	Cristobalite (see Silica – crystalline)	
(113)	Crocidolite (see Asbestos)	
(114)	*Crotonaldehyde (4170–30–3)	AO
(115)	Crufomate (299–86–5)	A
(116)	Cumene–skin (98–82–8)	AO
(117)	*Cupferron (135–20–6)	T
(118)	Cyanamide (420–04–2)	A
(119)	Cyanides, as Cn–skin (151–50–8; 143–33–9)	AO
(120)	Cyanogen (460–19–5)	A
(121)	Cyanogen chloride (506–77–4)	A
(122)	*Cycasin (14901–08–7)	R
(123)	Cyclohexane (110–82–7)	AO
(124)	Cyclohexanethiol (1569–69–3)	N
(125)	Cyclohexanol–skin (108–93–0)	AO
(126)	Cyclohexanone–skin (108–94–1)	ANO
(127)	Cyclohexene (110–83–8)	AO
(128)	Cyclohexylamine (108–91–8)	A
(129)	Cyclonite–skin (121–82–4)	A
(130)	Cyclopentadiene (542–92–7)	AO
(131)	Cyclopentane (287–92–3)	A
(132)	*Cyclophosphamide (50–18–0)	RT
(133)	Cyhexatin (13121–70–5)	A

D. Hazardous substances beginning with the letter D:

(1)	*Dacarbazine (4342–03–04)	RT
(2)	*Daunomycin	R
(3)	2,4–D (2,4–Dichlorophenoxyacetic acid) (94–75–7)	AO
(4)	DBCP (see 1,2–Dibromo–3–chloropropane)	
(5)	*DDT (Dichlorodiphenyltrichloroethane) (50–29–3)	ANORT
(6)	DDVP (see Dichlorvos)	
(7)	Decaborane–skin (17702–41–9)	AO
(8)	Decabromodiphenyl oxide (1163–19–5)	I
(9)	Demeton–skin (8065–48–3)	AO
(10)	Diacetone alcohol (4–Hydroxy–4–methyl–2–pentanone) (123–42–2)	ANO
(11)	*N,N'–Diacetylbenzidine	R
(12)	*2,4–Diaminoanisole and its salts (615–05–4)	N
(13)	*2,4–Diaminoanisole sulfate (39156–41–7)	T
(14)	*4,4'–Diaminodiphenyl ether	R
(15)	1,2–Diaminoethane (see Ethylenediamine)	
(16)	*2,4–Diaminotoluene (95–80–7)	RT
(17)	*o–Dianisidine–based dyes	N

(18)	Diatomaceous earth (see Silica – Amorphous)	
(19)	Diazinon–skin (333–41–5)	A
(20)	*Diazomethane (334–88–3)	AO
(21)	*Dibenz[a,h]acridine (22–6–36–8)	RT
(22)	*Dibenz[a,j]acridine (224–42–0)	RT
(23)	*Dibenz[a,h]anthracene (53–70–3)	RT
(24)	*7H–Dibenzo[c,g]carbazole (194–59–2)	RT
(25)	*Dibenzo[a,e]pyrene (192–65–4)	R
(26)	*Dibenzo[a,h]pyrene (189–64–0)	RT
(27)	*Dibenzo[a,i]pyrene (189–55–9)	RT
(28)	*Dibenzo[a,l]pyrene (191–30–0)	R
(29)	Diborane (19287–45–7)	AO
(30)	*1,2–Dibromo–3–chloropropane (DBCP) (96–12–8)	NORT
(31)	*1,2–Dibromoethane (see Ethylene dibromide)	
(32)	Dibrom (Dimethyl–1,2–dibromo–2–dichloroethyl phosphate) (300–76–5)	A
(33)	2–N–Dibutylaminoethanol–skin (102–81–8)	A
(34)	Dibutylphenylphosphate–skin (2528–36–1)	A
(35)	Dibutyl phosphate (107–66–4)	AO
(36)	Dibutyl phthalate (84–74–2)	AO
(37)	*Dichloroacetylene (7572–29–4)	A
(38)	o–Dichlorobenzene (95–50–11)	AO
(39)	*1,4–Dichlorobenzene (106–46–7)	AORT
(40)	*3,3'–Dichlorobenzidine (and salts)–skin (91–94–11)	ANORT
(41)	*3,3'–Dichlorobenzidine dihydrochloride (612–83–9)	T
(42)	1,4–Dichloro–2–butene–skin (764–41–0)	A
(43)	Dichlorodifluoromethane (75–71–8)	AO
(44)	*3,3'–Dichloro–4,4'–diaminodiphenyl ether	R
(45)	1,3–Dichloro–5,5–dimethyl hydantoin (118–52–5)	AO
(46)	*1,1–Dichloroethane (75–34–3)	ANORT
(47)	1,2–Dichloroethane (see Ethylene dichloride)	
(48)	1,1–Dichloroethylene (see Vinylidene chloride)	
(49)	1,2–Dichloroethylene (540–59–0)	AO
(50)	Dichloroethyl ether–skin (111–44–4)	AO
(51)	Dichlorofluoromethane (75–43–4)	A
(52)	Dichloromethane (see Methylene chloride)	
(53)	Dichloromonofluoromethane (75–43–4)	O
(54)	1,1–Dichloro–1–nitroethane (594–72–9)	AO
(55)	1,2–Dichloropropane (see Propylene dichloride)	
(56)	*1,3–Dichloropropene (technical grade) (542–75–6)	RT
(57)	Dichloropropene–skin (542–75–6)	A
(58)	2,2–Dichloropionic acid (75–99–0)	A
(59)	Dichlorotetrafluoroethane (Fluorocarbon 114) (76–14–2)	AO
(60)	Dichlorvos (DDVP)–skin (62–73–7)	AO
(61)	Dicrotophos–skin (141–66–2)	A
(62)	Dicyclohexylmethane–4,4'–diisocyanate (5124–30–1)	N
(63)	Dicyclopentadiene (77–73–6)	A
(64)	Dicyclopentadienyl iron (102–54–5)	A
(65)	*Dieldrin–skin (60–57–1)	ANO
(66)	*Dienoestrol (84–17–3)	R
(67)	*Diepoxybutane (1464–53–5)	T

(68)	*Di-2,3-epoxy propyl ether	N
(69)	Diethanolamine (111-42-2)	A
(70)	Diethylamine (109-89-7)	AO
(71)	2-Diethylaminoethanol-skin (100-37-8)	AO
(72)	Diethylene dioxide (see Dioxane)	
(73)	Diethylene glycol (111-46-6)	I
(74)	Diethylene glycol monoethyl ether	I
(75)	Diethylene triamine-skin (111-40-0)	A
(76)	Diethyl ether (see Ethyl ether)	
(77)	*Diethyl hydrazine	R
(78)	Diethyl ketone (96-22-0)	A
(79)	Diethyl phthalate (84-66-2)	A
(80)	*Di(2-ethyhexyl)phthalate (DEHP) (117-81-7)	NRT
(81)	*Diethylstilbestrol (56-53-1)	RT
(82)	*Diethyl sulfate (64-67-5)	RT
(83)	Difluorodibromomethane (FREON 12B2) (75-61-6)	AO
(84)	*Diglycidyl resorcinol ether (DGE) (101-90-6)	ANORT
(85)	*Dihydrosafrole	R
(86)	Dihydroxybenzene (see Hydroquinone)	
(87)	Diisobutyl ketone (108-83-8)	ANO
(88)	Diisobutylene (25167-70-8)	IN
(89)	Diisocyanates (not including those listed separately)	N
(90)	Diisopropylamine-skin (108-18-9)	ANO
(91)	*3,3' Dimethoxybenzidine (ortho-Dianisidine) (119-90-4)	RT
(92)	Dimethoxymethane (see Methylal)	
(93)	Dimethyl acetamide-skin (127-19-5)	AO
(94)	Dimethylamine (124-40-3)	AO
(95)	*4-Dimethylaminoazobenzene (60-11-7)	NORT
(96)	Dimethylaminobenzene (see Xylidene)	
(97)	*trans-2-2[(Dimethylamino)methylimino]-5-[2-(5-nitro-2-furyl)vinyl]-1,3,4-oxadiazole	R
(98)	Dimethylaniline (N,N-Dimethylaniline)-skin (121-69-7)	AO
(99)	Dimethylbenzene (see Xylene)	
(100)	*3,3' Dimethylbenzidine (119-93-7)	RT
(101)	*Dimethylcarbamoyl chloride (79-44-7)	ART
(102)	Dimethyl-1,2-dibromo-2-dichloroethyl phosphate (see Naled)	
(103)	Dimethyl ether (115-10-6)	I
(104)	Dimethylformamide (N-methylformamide) (68-12-2)	AO
(105)	2,6-Dimethyl-4-heptanone (see Diisobutyl ketone)	
(106)	*1,1-Dimethylhydrazine-skin (57-14-7)	ANORT
(107)	*1,2-Dimethylhydrazine	R
(108)	Dimethylnitrosoamine (see N-Nitrosodimethylamine)	
(109)	Dimethylphthalate (131-11-3)	AO
(110)	*Dimethyl sulfate-skin (77-78-1)	AOTR
(111)	Dimethyl terephthalate (120-61-6)	I
(112)	*Dimethylvinyl chloride (513-37-1)	T
(113)	Dinitolmide (148-01-6)	A
(114)	Dinitrobenzene, all isomers-skin (528-29-0; 99-65-0; 100-25-4)	AO
(115)	Dinitro-o-cresol (DNOC)-skin (534-52-1)	ANO

(116)	3,5–Dinitro–o–toluamide (Zoalene) (148–01–6)	A
(117)	*Dinitrotoluene–skin (25321–14–6)	ANO
(118)	*1,4–Dioxane (Diethylene dioxide)–skin (123–91–1)	ANORT
(119)	Dioxathion (Delanov)–skin (78–34–2)	A
(120)	Dioxin (see 2,3,7,8–Tetrachlorodibenzo–p–dioxin)	
(121)	Diphenyl (see Biphenyl)	
(122)	Diphenylamine (122–39–4)	A
(123)	Diphenyl ether (see Phenyl ether)	
(124)	Diphenylmethane diisocyanate (see Methylene bisphenyl isocyanate (MDI))	
(125)	Dipropylene glycol methyl ether (34590–94–8)	AO
(126)	Dipropyl ketone (4–Heptanone) (123–19–3)	A
(127)	Diquat dust (231–36–7)–skin	A
(128)	*Direct Black 38 (technical grade) (1937–37–7)	RT
(129)	*Direct Blue 6 (technical grade) (2602–46–2)	RT
(130)	*Direct Brown 95 (technical grade) (16071–86–6)	R
(131)	*Di–sec–octyl phthalate (di(2–Ethylhexyl)phthalate) (117–81–7)	AO
(132)	Disulfiram (97–77–8)	A
(133)	Disulfoton (Disyston) (298–04–4)	A
(134)	2,6–Di–tert–butyl–p–cresol (128–37–0)	A
(135)	Diuron (330–54–1)	A
(136)	Divinyl benzene (1321–74–0)	A
(137)	Dust, Inert or Nuisance (When toxic impurities are not present, for example, quartz less than 1 percent.) Including:	A

(a) α–Alumnia (AL_2O_3);
(b) Aluminum, metal and oxide;
(c) Calcium carbonate;
(d) Calcium silicate;
(e) Calcium sulfate;
(f) Cellulose (paper fiber);
(g) Emery;
(h) Glycerin Mist;
(i) Graphite (synthetic);
(j) Gypsum;
(k) Kaolin;
(l) Limestone;
(m) Magnesite;
(n) Marble;
(o) Mineral Wool Fiber;
(p) Pentaerythritol;
(q) Perlite;
(r) Plaster of Paris;
(s) Portland Cement;
(t) Precipitated Silica;
(u) Rouge;
(v) Silica gel;
(w) Silicon;
(x) Silicon Carbide;

(y) Starch;
(z) Stearates;
(aa) Sucrose;
(bb) Titanium Dioxide;
(cc) Vegetable oil mists (except castor, cashew nut, or similar irritant oils);
(dd) Zinc Stearate; and
(ee) Zinc Oxide Dust.

(138)	Dyfonate–skin (944–22–9)	A

E. Hazardous substances beginning with the letter E:

(1)	Emery (1302–74–5)	A
(2)	Endosulfan (Thiodan)–skin (115–29–7)	A
(3)	Endrin–skin (72–20–8)	AO
(4)	Enflurane (13838–16–9)	A
(5)	Enzymes (see Subtilisins)	
(6)	*Epichlorohydrin–skin (106–89–8)	ANORT
(7)	EPN–skin (2104–64–5)	AO
(8)	1,2–Epoxypropane (see Propylene oxide)	
(9)	2,3–Epoxy–1–propanol (see Glycidol)	
(10)	*Erionite	R
(11)	Erythromycin (114–07–8)	I
(12)	*Estrogens (not conjugated):	
	1. Estradiol 17β (50–28–2)	T
	2. Estrone (53–16–7)	T
	3. Ethinyl estradiol (57–63–6)	T
	4. Mestranol (72–33–3)	T
(13)	Ethane (74–84–0)	A
(14)	Ethanethiol (see Ethyl mercaptan)	
(15)	Ethanol (see Ethyl alcohol)	
(16)	Ethanolamine (141–43–5)	A
(17)	*Ethinyl–oestradiol (57–63–6)	R
(18)	Ethion–skin (563–12–2)	A
(19)	2–Ethoxyethanol–skin (110–80–5)	ANO
(20)	2–Ethoxyethyl acetate–skin (111–15–9)	AO
(21)	Ethyl acetate (141–78–6)	AO
(22)	*Ethyl acrylate–skin (140–88–5)	AORT
(23)	Ethyl alcohol (Ethanol) (64–17–5)	AO
(24)	Ethylamine (75–04–7)	AO
(25)	Ethyl amyl ketone (5–Methyl–3–Heptanone) (541–85–5)	AO
(26)	Ethyl benzene (100–41–4)	AO
(27)	*Ethyl bromide–skin (74–96–4)	AO
(28)	Ethyl butyl ketone (3–Heptanone) (106–35–4)	AO
(29)	Ethyl chloride (75–00–3)	AO
(30)	Ethylene (74–85–1)	A
(31)	Ethylene Chlorohydrin–skin (107–07–3)	AO
(32)	Ethylenediamine (107–15–3)	AO
(33)	*Ethylene dibromide–skin (106–93–4)	ANORT
(34)	*Ethylene dichloride (1,2–Dichloroethane) (107–06–2)	ANOT
(35)	Ethylene glycol (107–21–1), particulate and vapor	A
(36)	Ethylene glycol dinitrate (EGDN)–skin (628–96–6)	ANO
(37)	Ethylene glycol methyl ether acetate–skin (110–49–6)	AO
(38)	*Ethylenimine–skin (151–56–4)	ANO
(39)	*Ethylene oxide (75–21–8)	ANOSRT

(40)	*Ethylene thiourea (96–45–7)	NRT
(41)	Ethylenimine–skin (151–56–4)	A
(42)	Ethyl ether (60–29–7)	AO
(43)	Ethyl formate (109–94–4)	A
(44)	Ethylidene chloride (see 1,1–Dichloroethane)	
(45)	Ethylidene norbornene (16219–75–3)	A
(46)	Ethyl mercaptan (75–08–1)	ANO
(47)	*Ethyl methanesulfonate	R
(48)	N–Ethylmorpholine–skin (100–74–3)	AO
(49)	*N–Ethyl–N–nitrosourea	R
(50)	Ethyl silicate (78–10–4)	AO

F. Hazardous substances beginning with the letter F:

(1)	Fenamiphos–skin (22224–92–6)	A
(2)	Fensulfothion (Dasanit) (115–90–2)	A
(3)	Fenthion (55–38–9)	A
(4)	Ferbam (14484–64–1)	AO
(5)	Ferrovanadium; dust (12604–58–9)	AO
(6)	Fibrous glass dust (see Glass)	
(7)	Fluoride, as F, as dust (16984–48–8)	ANO
(8)	Fluorides, inorganic	N
(9)	Fluorine (7782–41–4)	AO
(10)	Fluorocarbon, Polymers (decomposition products of)	N
(11)	Fluorocarbon 11 (see Trichlorofluoromethane)	
(12)	Fluorocarbon 12 (see Dichlorodifluoromethane)	
(13)	Fluorocarbon 13b1 (see Trifluoromonobromomethane)	
(14)	Fluorocarbon 21 (see Dichlorofluoromethane)	
(15)	Fluorocarbon 22 (see Chlorodifluoromethane)	
(16)	Fluorocarbon 112 (see 1,1,2,2–Tetrachloro–1,2–difluoroethane)	
(17)	Fluorocarbon 113 (see 1,1,2–Trichloro–1,2,2–trifluoroethane)	
(18)	Fluorocarbon 114 (see Dichlorotetrafluoroethane)	
(19)	Fluorocarbon 115 (see Chloropentafluoroethane)	
(20)	Fluorotrichloromethane (see Trichlorofluoromethane)	
(21)	Fonofos–skin (944–22–9)	AO
(22)	*Formaldehyde (50–00–0)	ANORT
(23)	Formamide–skin (75–12–7)	A
(24)	Formic acid (64–18–6)	AO
(25)	*2–(2–Formylhydrazino)–4–(5–nitro–2–furyl)thiazole	R
(26)	Furfural–skin (98–01–1)	A
(27)	Furfuryl alcohol–skin (98–00–0)	AN

G. Hazardous substances beginning with the letter G:

(1)	*Gallium arsenide (7440–55–3)	N
(2)	Gases, Simple Asphyxiants (see separate listings):	A

(a) Acetylene;
(b) Argon;
(c) Ethane;
(d) Ethylene;
(e) Helium;
(f) Hydrogen;
(g) Methane;

(h) Neon;

(i) Propane; and

(j) Propylene.

(3)	Gasoline (8006–61–9)	A
(4)	Germanium tetrahydride (7782–65–2)	A
(5)	Glass, fibrous or dust	AN
(6)	*Glu–P–1(2–Amino–6–methyldipyrido[1,2–a:3; 2'–d])imidazole	R
(7)	*Glu–P–2(2–Aminodipyrido[1,2–a:3;2'–d])imidazole	R
(8)	Glutaraldehyde (111–30–8)	A
(9)	Glycerin mist (56–81–5)	A
(10)	*Glycidaldehyde	R
(11)	Glycidol (2,3–Epoxy–1–propanol) (556–52–5)	AO
(12)	*Glycidyl ethers	N
(13)	Glycol monoethyl ether (see 2–Ethoxyethanol)	
(14)	Glycolonitrile (107–16–4)	N
(15)	Grain Dust (oat, wheat, barley)	A
(16)	Graphite (all forms except graphite fibers)–dust (7782–42–5)	AO
(17)	*Griseofulvin	R
(18)	Guthion (see Azinphos–methyl)	
(19)	Gypsum (see calcium sulfate)	
(20)	*Gyromitrin (16568–02–8) (acetaldehyde formyl–methyl hydrazone)	R

H. Hazardous substances beginning with the letter H:

(1)	Hafnium (7440–58–6)	AO
(2)	Halothane (151–67–7)	AN
(3)	Halowax (see Hexachloronaphthalene)	
(4)	Helium (7440–59–7)	A
(5)	*Heptachlor and heptachlor epoxide–skin (76–44–8)	AO
(6)	Heptane (n–Heptane) (142–82–5)	ANO
(7)	2–Heptanone (see Methyl n–amyl ketone)	
(8)	3–Heptanone (see Ethyl butyl ketone)	
(9)	*Hexachlorobenzene–skin (118–74–1)	AT
(10)	*Hexachlorobutadiene (76–68–3)	A
(11)	*Hexachlorocyclohexane isomers (including Lindane)	RT
(12)	Hexachlorocyclopentadiene (77–47–4)	A
(13)	*Hexachloroethane–skin (67–72–1)	ANO
(14)	Hexachloronaphthalene (Halowax 1014)–skin (1335–87–1)	AO
(15)	Hexadiene (592–42–7)	I
(16)	Hexafluoroacetone–skin (684–16–2)	A
(17)	*Hexamethylphosphoramide–skin (680–31–9)	ART
(18)	Hexamethylene diamine (124–09–4)	I
(19)	Hexamethylene diisocyanate (822–06–0)	AN
(20)	Hexane (n–Hexane) (110–54–3)	ANO
(21)	Hexane, other isomers (107–83–5; 107–83–2)	A
(22)	1,6–Hexanediamine (124–09–4)	A
(23)	1,6–Hexanediol diacrylate (13048–33–4)	I
(24)	1–Hexanethiol (111–31–9)	N
(25)	2–Hexanone (Methyl n–butyl ketone) (591–78–6)	AO
(26)	Hexone (Methyl isobutyl ketone) (108–10–1)	AO
(27)	sec–Hexyl acetate (108–84–9)	AO
(28)	Hexylene glycol (107–41–5)	A

(29)	*Hydrazine–skin (302–01–2)	ANORT
(30)	*Hydrazine sulfate (10034–93–2)	T
(31)	*Hydrazobenzene (122–66–7)	T
(32)	Hydrogen (1333–74–0)	A
(33)	Hydrogenated terphenyls (61788–32–7)	A
(34)	Hydrogen bromide (10035–10–6)	AO
(35)	Hydrogen chloride (7647–01–0)	AO
(36)	Hydrogen cyanide–skin (74–90–8)	ANO
(37)	Hydrogen fluoride (7664–39–3), as F	ANO
(38)	Hydrogen peroxide (7722–84–1)	A
(39)	Hydrogen peroxide (90%) (7722–84–1)	O
(40)	Hydrogen selenide, as Se (7783–07–5)	AO
(41)	Hydrogen sulfide (7783–06–4)	ANO
(42)	Hydroquinone (123–31–9)	ANO
(43)	4–Hydroxy–4–methyl–2–pentanone (see Diacetone alcohol)	
(44)	2–Hydroxypropyl acrylate–skin (999–61–1)	A

I. Hazardous substances beginning with the letter I:

(1)	Indene (95–13–6)	A
(2)	*Indeno(1,2,3–cd)pyrene (193–39–5)	RT
(3)	Indium (7440–74–6) and compounds, as In	A
(4)	Inert or Nuisance Dusts (see Dust)	
(5)	Iodine (7553–56–2)	AO
(6)	Iodoform (75–47–8)	A
(7)	*IQ (2–Amino–3–methylimidazo[4,5–f]quinoline)	R
(8)	*Iron dextran complex (9004–66–4)	RT
(9)	Iron oxide fume (Fe_2O_3) (1309–37–1), as Fe	AO
(10)	Iron pentacarbonyl (13463–40–6), as Fe	A
(11)	Iron salts, soluble, as Fe	A
(12)	Isoamyl acetate (123–92–2)	AO
(13)	Isoamyl alcohol (123–51–3)	AO
(14)	Isobutyl acetate (110–19–0)	AO
(15)	Isobutyl alcohol (78–83–1)	AO
(16)	Isobutyronitrile (78–82–0)	N
(17)	Isocyanuric acid (108–80–5)	I
(18)	Isooctyl alcohol–skin (26952–21–6)	A
(19)	Isophorone (78–59–1)	ANO
(20)	Isophorone diisocyanate–skin (4098–71–9)	AN
(21)	Isophthalic acid	I
(22)	Isoprene (78–79–5)	I
(23)	Isopropoxyethanol (109–59–1)	A
(24)	Isopropyl acetate (108–21–4)	AO
(25)	Isopropyl acetone (see Methyl isobutyl ketone)	
(26)	Isopropyl alcohol (67–63–0)	ANO
(27)	Isopropylamine (75–31–0)	A
(28)	N–Isopropylaniline–skin (768–52–5)	A
(29)	Isopropyl ether (108–20–3)	AO
(30)	Isopropyl glycidyl ether (IGE) (4016–14–2)	ANO

J. Hazardous substances beginning with the letter K:

(1)	Kaolin dust (1332–58–7)	A
(2)	*Kepone® (see Chlordecone)	
(3)	Ketene (463–51–4)	AO

K. Hazardous substances beginning with the letter L:

(1)	*Lasiocarpine	R
(2)	*Lead (7439–92–1), inorganic fumes and dusts, as Pb	ANO
(3)	*Lead acetate (301–04–2)	T
(4)	Lead arsenate (10102–48–4), as $Pb_3 (AsO_4)_2$	A
(5)	*Lead chromate, as Pb and Cr (7758–97–6)	A
(6)	*Lead phosphate (7446–27–7)	T
(7)	Limestone (see Calcium carbonate)	
(8)	*Lindane–skin (and other hexachlorocyclohexane isomers) (58–89–9)	AOT
(9)	Lithium hydride (7580–67–8)	AO
(10)	Lithium hydroxide (and monohydrate) (1310–65–2)	I
	(and monohydrate portion) (1310–66–3)	I
(11)	Lithium oxide (12057–248)	I
(12)	L.P.G. (Liquefied Petroleum Gas) (68476–85–7)	AO

L. Hazardous substances beginning with the letter M:

(1)	Magnesite (546–93–0)	A
(2)	Magnesium oxide fume (1309–48–4)	AO
(3)	Malathion–skin (121–75–5)	ANO
(4)	Maleic anhydride (108–31–6)	AO
(5)	Malononitrile (109–77–3)	N
(6)	Mancozeb	I
(7)	Manganese, elemental and compounds, as Mn (7439–96–5)	AO
(8)	Manganese cyclopentadienyltricarbonyl (12079–65–1) as Mn–skin	A
(9)	Manganese tetroxide (1317–35–7)	A
(10)	Marble (see Calcium carbonate)	
(11)	*MeA–a–C(2–Amino–3–methyl–9H–pyrido[2,3–b]indole)	R
(12)	*Medroxyprogesterone acetate	R
(13)	*Melphalan (148–82–3)	RT
(14)	Mercaptoacetic acid (see Thioglycolic acid)	
(15)	Mercaptoethanol	I
(16)	Mercury, as Hg–skin (7439–97–6)	AN
(17)	*Merphalan	R
(18)	Mesityl oxide (141–79–7)	ANO
(19)	Mestranol (72–33–3)	R
(20)	Methacrylic acid (79–41–4)	A
(21)	Methane (74–82–8)	A
(22)	Methanethiol (see Methyl mercaptan)	
(23)	Methanol (see Methyl alcohol)	
(24)	Methomyl (Lannate)–skin (16752–77–5)	A
(25)	*Methoxsalen with ultra–violet A therapy (PUVA)	RT
(26)	Methoxychlor (72–43–5)	AO
(27)	2–Methoxyethanol (Methyl cellosolve)–skin (109–86–4)	AO
(28)	2–Methoxyethyl acetate–skin (110–49–6)	A
(29)	4–Methoxyphenol (150–76–5)	A
(30)	3–Methoxypropylamine (5332–73–0)	I
(31)	*Methoxsalen (with ultra–violet A therapy, PUVA)	R
(32)	Methyl acetate (79–20–9)	AO
(33)	Methyl acetylene (Propyne) (74–99–7)	AO
(34)	Methyl acetylene–propadiene mixture (MAPP)	AO
(35)	Methyl acrylate–skin (96–33–3)	AO

(36)	Methylacrylonitrile–skin (126–98–7)	A
(37)	Methylal (Dimethoxy methane) (109–87–5)	AO
(38)	Methyl alcohol (Methanol)–skin (67–56–1)	ANO
(39)	Methylamine (74–89–5)	AO
(40)	Methyl amyl alcohol (see Methyl isobutyl carbinol)–skin	
(41)	Methyl n–amyl ketone (2–Heptanone) (110–43–0)	ANO
(42)	N–Methyl aniline–skin (100–61–8)	A
(43)	*2–Methylaziridine (Propyleneimine) (75–55–8)	RT
(44)	*Methylazoxymethanol and its acetates	R
(45)	*Methyl bromide–skin (74–83–9)	ANO
(46)	Methyl–n–butyl ketone (591–78–6)	ANO
(47)	Methyl cellosolve–skin (109–86–4)	O
(48)	Methyl cellosolve acetate (Ethylene glycol monomethyl ether acetate)–skin (110–49–6)	AO
(49)	*Methyl chloride (74–87–3)	ANO
(50)	Methyl chloroform (1,1–Trichloroethane) (71–55–6)	ANO
(51)	*Methyl chloromethyl ether (107–30–2)	ANO
(52)	*5–Methylchrysene	R
(53)	Methyl–2–cyanoacrylate (137–05–3)	A
(54)	Methylcyclohexane (108–87–2)	AO
(55)	Methylcyclohexanol (25639–42–3)	AO
(56)	o–Methylcyclohexanone–skin (583–60–8)	AO
(57)	2–Methylcyclopentadienyl manganese tricarbonyl, as Mn–Skin (12108–13–3)	A
(58)	Methyl demeton–skin (8022–00–2)	A
(59)	*4,4'–Methylenebis(N,N–dimethyl)benzenamine (101–61–1)	T
(60)	Methylene bisphenyl isocyanate (MDI) (101–68–8)	ANO
(61)	*Methylene chloride (75–09–2)	ANO
(62)	*4,4'–Methylenebis(2–Chloroaniline) (MBOCA)–skin (101–14–4)	ANRT
(63)	*4,4'–Methylenebis(2–methylaniline)	R
(64)	*4,4'–Methylenebis(N,N–dimethyl)benzenamine (101–61–1)	T
(65)	Methylene bis –(4–cyclohexylisocyanate) (5124–30–1)	A
(66)	*4,4–Methylenedianiline–skin; and its dihydrochloride (101–77–9) and (13552–44–8)	ANRT
(67)	Methyl ethyl ketone (MEK) (78–93–3)	ANO
(68)	Methyl ethyl ketone peroxide (1338–23–4)	AO
(69)	Methyl ethyl ketoxime (96–29–7)	I
(70)	Methyl formate (107–31–3)	AO
(71)	5–Methyl–3–heptanone (see Ethyl amyl ketone)	
(72)	*Methyl hydrazine–skin (60–34–4)	ANO
(73)	*Methyl iodide–skin (74–88–4)	ANO
(74)	Methyl isoamyl ketone (110–12–3)	AN
(75)	Methyl isobutyl carbinol–skin (108–11–2)	AO
(76)	Methyl isobutyl ketone (Hexone) (108–10–1)	ANO
(77)	Methyl isocyanate–skin (624–83–9)	AO
(78)	Methyl isopropyl ketone (563–80–4)	A
(79)	*Methyl methanesulfonate	R
(80)	Methyl mercaptan (74–93–1)	ANO
(81)	Methyl methacrylate (80–62–6)	AO
(82)	2–methyl–1–nitroanthraquinone (uncertain purity)	R

(83)	*N–Methyl–N'–nitro–N–nitrosoguanidine (MNNG)	R
(84)	*N–Methyl–N–nitrosourea	R
(85)	*N–Methyl–N–nitrosourethane	R
(86)	N–methyl–2–Pyrrolidone	I
(87)	Methyl parathion–skin (298–00–0)	AN
(88)	Methyl n–propyl ketone (107–87–9)	ANO
(89)	Methyl silicate (681–84–5)	A
(90)	α–Methyl styrene (98–83–9)	AO
(91)	Methyl tert–Butyl ether	I
(92)	*Methylthiouracil	R
(93)	Methyltrichlorosilane	I
(94)	Metribuzin (21087–64–9)	A
(95)	*Metronidazole (443–48–1)	RT
(96)	Mevinphos (PHOSDRIN®)–skin (7786–34–7)	A
(97)	Mica, dust (12001–25–2)	AO
(98)	*Michler's Ketone (90–94–8)	T
(99)	*Mineral oils (lubricant, base oils, and derived products) (general: 8002–05–9) (untreated vacuum distillates; acid–treated oils; aromatic oils; mildly solvent–refined oils; mildly hydro–treated oils; used gasoline–engine oil; and mineral oils used in mulespinning, metal machining, and jute processing)	AORT
(100)	Mineral wool fiber	A
(101)	*Mirex (2385–85–5)	RT
(102)	*Mitomycin C	R
(103)	Molybdenum (7439–98–7), as Mo, soluble/insoluble compounds	AO
(104)	Monochloroacetic acid–skin (79–11–8)	I
(105)	Monochlorobenzene (see Chlorobenzene)	
(106)	*Monocrotaline	R
(107)	Monocrotophos (Azodrin) (6923–22–4)	A
(108)	Monomethyl aniline–skin (100–61–8)	AO
(109)	Monomethyl hydrazine–skin (60–34–4)	O
(110)	Morpholine–skin (110–91–8)	AO
(111)	*5–(Morpholinomethyl)–3–[(5–nitrofurfurylidene) amino]–2–oxazolidinone	R
(112)	*Mustard gas (505–60–2)	RT

M. Hazardous substances beginning with the letter N:

(1)	Nafenopin	R
(2)	Naled (300–76–5) (Dibrom)	A
(3)	Naphtha (Coal Tar) (MX8030–31–7)	O
(4)	Naphtha (VM&P Naphtha)	A
(5)	Naphtha (Rubber Solvent)	AO
(6)	Naphthalene (91–20–3)	AO
(7)	Naphthalene diisocyanate (25551–28–4)	N
(8)	*α–Naphthylamine (91–59–8)	NO
(9)	*2–Naphthylamine (91–59–8)	ANRT
(10)	α–Naphthylthiourea (see ANTU)	
(11)	Neon (7440–01–09)	A
(12)	Niax® Catalyst ESN	N
(13)	*Nickel (7440–02–0), elemental, soluble, and insoluble compounds, as Ni	ANORT

(14)	Nicotine–skin (54–11–5)	AO
(15)	*Niridazole	R
(16)	Nitrapyrin (1929–82–4)	A
(17)	Nitric acid (7697–37–2)	ANO
(18)	Nitric oxide (10102–43–9)	AO
(19)	*Nitrilotriacetic acid (139–13–9)	T
(20)	*5–Nitroacenaphthene	R
(21)	p–Nitroaniline–skin (100–01–6)	AO
(22)	*5–Nitro–o–anisidine (99–59–2)	T
(23)	*4–Nitrobiphenyl (see *4–Nitrodiphenyl)	
(24)	Nitrobenzene–skin (98–95–3)	AO
(25)	p–Nitrochlorobenzene (100–00–5)	AO
(26)	Nitrochloromethane (see Chloropicrin)	
(27)	*4–Nitrodiphenyl (92–93–3)	ANO
(28)	Nitroethane (79–24–3)	AO
(29)	*Nitrofen (1836–75–5)	RT
(30)	*1–[(5–Nitrofurfurylidene)amino]–2–imidazolidinone	R
(31)	*N–[4–(5–Nitro–2–furyl)–2–thiazolyl]acetamide	R
(32)	Nitrogen (7727–37–9)	A
(33)	Nitrogen dioxide (10102–44–0)	ANO
(34)	*Nitrogen mustard (51–75–2)	RT
(35)	*Nitrogen mustard hydrochloride (55–86–7)	T
(36)	Nitrogen trifluoride (7783–54–2)	AO
(37)	Nitroglycerin (NG)–skin (55–63–0)	ANO
(38)	Nitromethane (75–52–5)	AO
(39)	*2–Nitronaphthalene (581–89–5)	N
(40)	*5–Nitro–o–anisidine (99–59–2)	T
(41)	1–Nitropropane (108–03–2)	AO
(42)	*2–Nitropropane (79–46–9)	ANORT
(43)	*N–Nitrosodi–n–butylamine (924–16–3)	RT
(44)	*N–Nitrosodiethanolamine (1116–54–7)	RT
(45)	*N–Nitrosodiethylamine (55–18–5)	RT
(46)	*N–Nitrosodiemethylamine (62–75–9)	AONRT
(47)	*p–Nitrosodiphenylamine (156–10–5)	T
(48)	*N–Nitrosodi–n–propylamine (621–64–7)	RT
(49)	*N–Nitroso–N–ethylurea (759–73–9)	T
(50)	*N–Nitroso–N–methylurea (684–93–5)	T
(51)	*3–(N–Nitrosomethylamino)propionitrile	R
(52)	*4–(N–Nitrosomethylamino)–1–(3–pyridyl)–1–butanone (NNK)	R
(53)	*N–Nitrosomethylethylamine	R
(54)	*N–Nitrosomethylvinylamine (4549–40–0)	RT
(55)	*N–Nitrosomorpholine (59–89–2)	RT
(56)	*N–Nitrosonornicotine (1654–55–8)	RT
(57)	*N–Nitrosopiperidine (100–75–4)	RT
(58)	*N–Nitrosopyrrolidine (930–55–2)	RT
(59)	*N–Nitrososarcosine (13256–22–9)	RT
(60)	Nitrotoluene–skin (99–08–1)	AO
(61)	Nitrotrichloromethane (see Chloropicrin)	
(62)	Nitrous oxide (10024–97–2)	AN
(63)	Nonane (111–84–2)	A
(64)	*Norethisterone (68–22–4)	RT
(65)	Nuisance Dust (see Dust)	

N. Hazardous substances beginning with the letter O:

(1)	Octachloronaphthalene–skin (2234–13–1)	AO
(2)	Octane (111–65–9)	ANO
(3)	1–Octanol (111–87–5)	I
(4)	*Oestradiol–17B (50–28–2)	R
(5)	*Oestrone (53–16–7)	R
(6)	*Oil mist, mineral (8012–95–1)	A
(7)	Organo (alkyl) mercury	O
(8)	Organotin compounds	NO
(9)	Osmium tetroxide (20816–12–0), as Os	AO
(10)	Oxalic acid (144–62–7)	AO
(11)	*4,4'–Oxydianiline (101–80–4)	T
(12)	Oxygen difluoride (7783–41–7)	AO
(13)	*Oxymetholone (434–07–1)	RT
(14)	Ozone (10028–15–6)	AO

O. Hazardous substances beginning with the letter P:

(1)	*PCB (see Chlorodiphenyl)	
(2)	*Panfuran S (containing dihydroxymethylfuratrizine)	R
(3)	Paraffin wax fume (8002–74–2)	A
(4)	Paraquat – respirable sizes (4685–14–7)	A
(5)	Paraquat–skin (1910–42–5)	AO
(6)	Parathion–skin (56–38–2)	ANO
(7)	Particulate polycyclic aromatic hydrocarbons (PPAH) (see Coal tar pitch volatiles)	
(8)	Pentaborane (19624–22–7)	AO
(9)	Pentachloroethane (76–01–7)	N
(10)	Pentachloronaphthalene (1321–64–8)	AO
(11)	Pentachloronitrobenzene (82–68–8)	A
(12)	Pentachlorophenol (PCP) (87–86–5) (see also Chlorophenols)	AO
(13)	Pentaerythritol (115–77–5)	A
(14)	Pentaerythritol triacrylate (3524–68–3)	I
(15)	Pentane (109–66–0)	ANO
(16)	2–Pentanone (see Methyl propyl ketone)	
(17)	*Perchloroethylene (Tetrachloroethylene)–skin (127–18–4)	ANO
(18)	Perchloromethyl mercaptan (594–42–3)	AO
(19)	Perchloryl fluoride (7616–94–6)	AO
(20)	Perfluoroisobutylene (382–21–8)	A
(21)	Perlite	A
(22)	Petroleum Distillates (Naphtha) (8030–30–6)	O
(23)	*Phenacetin (62–44–2)	RT
(24)	Phenacyl chloride (see α–Chloroacetophenone)	
(25)	*Phenazopyridine (94–78–0)	RT
(26)	*Phenazopyridine hydrochloride (136–40–3)	RT
(27)	*Phenobarbitol	R
(28)	Phenol–skin (108–95–2)	ANO
(29)	Phenothiazine–skin (92–84–2)	A
(30)	*Phenoxyacetic acid herbicides	R
(31)	*Phenoxybenzamine hydrochloride (63–92–3)	RT
(32)	*N–Phenyl–beta–naphthylamine (135–88–6)	AN
(33)	m–Phenylenediamine (108–45–2)	A
(34)	*o–Phenylenediamine (95–54–5)	A

(35)	p–Phenylene diamine–skin (106–50–3)	AO
(36)	Phenyl ether (101–84–8)	AO
(37)	Phenyl ether–biphenyl mixture, vapor	O
(38)	Phenylethylene (see Styrene, monomer)	
(39)	*Phenyl glycidyl ether (PGE) (122–60–1)	ANO
(40)	*Phenylhydrazine–skin (100–63–0)	ANO
(41)	Phenyl mercaptan (108–98–5)	A
(42)	Phenylphosphine (638–21–1)	A
(43)	*Phenytoin (and sodium salts of) (57–41–0)	RT
(44)	Phorate (Thimet)–skin (298–02–2)	A
(45)	Phosdrin (Mevinphos)–skin (7786–34–7)	AO
(46)	Phosgene (Carbonyl chloride) (75–44–5)	ANO
(47)	Phosphamidon (13171–21–6)	O
(48)	Phosphine (7803–51–2)	AO
(49)	Phosphoric acid (7664–38–2)	AO
(50)	Phosphorus (yellow) (7723–14–0)	AO
(51)	Phosphorus oxychloride (10025–87–3)	A
(52)	Phosphorus pentachloride (10026–13–8)	AO
(53)	Phosphorus pentasulfide (1314–80–3)	AO
(54)	Phosphorus trichloride (7719–12–2)	AO
(55)	Phthalic anhydride (85–44–9)	AO
(56)	m–Phthalodinitrile (626–17–5)	A
(57)	Picloram (Tordon) (1918–02–1)	A
(58)	Picolines–skin	I
(59)	Picric acid (2,4,6–Trinitrophenol)–skin (88–89–1)	AO
(60)	Pindone (2–Pivaloyl–a,3–indandione) (83–26–1)	A
(61)	Piperazine dihydrochloride (142–64–3)	A
(62)	Piperidine (110–89–4)	I
(63)	Pival® (Pindone) (83–26–1)	AO
(64)	2–Pivalyl–1,3–indandione (see Pindone)	
(65)	Plaster of Paris (see Calcium sulfate)	
(66)	Platinum (Metal) (7440–06–4)	A
(67)	Platinum (7440–06–04), soluble salts, as Pt	AO
(68)	*Polybrominated biphenyls (36355–01–8)	RT
(69)	*Polychlorinated biphenyls (see also chlorodiphenyl) (1336–36–3)	NRT
(70)	*Polychlorobiphenyls (PCBs) (see Chlorodiphenyls)	
(71)	*Polycyclic aromatic hydrocarbons, 15 listings	T
(72)	Polyethylene glycols (25322–68–3)	I
(73)	Polypropylene glycols (25322–69–4)	I
(74)	Polytetrafluoroethylene (TEFLON) decomposition products	A
(75)	*Ponceau MX	R
(76)	*Ponceau 3R	R
(77)	Portland cement (65997–15–1)	A
(78)	Potassium bromate (7758–01–2)	AIR
(79)	Potassium hydroxide (1310–58–3)	A
(80)	Precipitated silica (see Silica – Amorphous)	
(81)	*Procarbazine (671–16–9)	RT
(82)	*Procarbazine hydrochloride (366–70–1)	RT
(83)	*Progesterone (57–83–0)	RT
(84)	*Progestins	R
(85)	Propane (74–98–6)	AO
(86)	*1,3–Propane sultone (1120–71–4)	ART
(87)	1–Propanethiol (see Propyl mercaptan)	

(88)	Propargyl alcohol–skin (107–19–7)	A
(89)	*β–Propiolactone (57–57–8)	ANORT
(90)	Propionic acid (79–09–4)	A
(91)	Propoxur (see BAYGON®)	
(92)	n–Propyl acetate (109–60–4)	AO
(93)	Propyl alcohol–skin (71–23–8)	AO
(94)	n–Propyl mercaptan (107–03–9)	NO
(95)	n–Propyl nitrate (627–13–4)	AO
(96)	Propylene (115–07–1)	A
(97)	Propylene dichloride (1,2–Dichloro propane) (78–87–5)	AO
(98)	Propylene glycol (57–556)	I
(99)	Propylene glycol dinitrate (PGDN)–skin (6423–43–4)	A
(100)	Propylene glycol monomethyl ether (107–98–2)	A
(101)	*Propylene imine–skin (75–55–8)	AO
(102)	*Propylene oxide (75–56–9)	AORT
(103)	n–Propyl nitrate (627–13–4)	A
(104)	*Propylthiouracil (51–52–5)	RT
(105)	Propyne (74–99–7)	AO
(106)	Pseudocumene (see 1,2,4–Trimethylbenzene)	
(107)	Pyrethrum (8003–34–7)	AO
(108)	Pyridine (110–86–1)	AO
(109)	Pyrocatechol (Catechol) (120–80–9)	A

P. Hazardous substances beginning with the letter Q:

(1)	Quartz (see Silica – Crystalline)	
(2)	Quinoline–skin (91–22–5)	I
(3)	Quinone (106–51–4)	AO

Q. Hazardous substances beginning with the letter R:

(1)	RDX (Cyclonite)–skin (121–82–4)	A
(2)	*Reserpine (50–55–5)	T
(3)	Resorcinol (108–46–3)	A
(4)	Rhodium (7440–16–6)	AO
(5)	Ronnel (299–84–3)	AO
(6)	Rosin core solder decomposition products, as resin acids–colophony (8050–09–7)	A
(7)	Rosin core solder pyrolysis products, as Formaldehyde	A
(8)	Rotenone (Commercial) (83–79–4)	AO
(9)	Rouge	A
(10)	Rubber solvent (Naphtha) (see Naphtha – Rubber Solvent)	

R. Hazardous substances beginning with the letter S:

(1)	*Saccharin (81–07–2)	RT
(2)	*Safrole (94–59–7)	RT
(3)	Selenium compounds (7782–49–2), as Se	AO
(4)	Selenium hexafluoride (7783–79–1), as Se	AO
(5)	*Selenium sulfide (7446–34–6)	T
(6)	*Sequential oral contraceptives (compound(s) responsible for the probable carcinogenic effect in humans cannot be specified)	R
(7)	Sesone (136–78–7)	A
(8)	Sevin (63–25–2)	AO

(9)	*Shale oils (68308–34–9)	R
(10)	Silane (see Silicon tetrahydride)	
(11)	*Silica (SiO_2) (7631–86–9)	ANOR
(12)	Silica – Amorphous	
	– Diatomaceus earth (uncalcined) (61790–53–2)	AR
	– Fume (69012–64–2)	A
	– Fused (60676–86–0)	A
	– Precipitated silica (112926–00–8)	A
	– Silica gel (112926–00–8)	A
(13)	*Silica – Crystalline	
	Cristobalite (14464–46–1)	A
	Quartz (14808–60–7)	A
	Silica, fused (60676–86–0)	A
	Tridymite (15468–32–3)	A
	Tripoli (1317–95–9)	A
(14)	Silicon (7440–21–3)	A
(15)	Silicon carbide (409–21–2)	A
(16)	Silicon tetrahydride (7803–62–5)	A
(17)	Silver (7440–22–4), metal and soluble compounds, as Ag	AO
(18)	Soapstone, dust	AO
(19)	Sodium azide (26628–22–8)	A
(20)	Sodium bisulfite (7631–90–5)	A
(21)	Sodium 2,4–dichlorophenoxyethyl sulfate (CRAG) (136–78–7)	AO
(22)	Sodium fluoroacetate–skin (62–74–8)	AO
(23)	Sodium hydroxide (1310–73–2)	ANO
(24)	Sodium hypochlorite (7681–52–9)	I
(25)	Sodium metabisulfite (7681–57–4)	A
(26)	*Sodium ortho–phenylphenate	R
(27)	Sodium perfluoroacetate–skin (62–74–8)	A
(28)	*Soots	RT
(29)	Starch (9005–25–8)	A
(30)	Stearates	A
(31)	*Sterigmatocystin	R
(32)	Stibine (7803–52–3)	AO
(33)	Stoddard solvent (8052–41–3)	ANO
(34)	*Streptozotocin (18883–66–4)	RT
(35)	*Strontium chromate, as Cr (7789–06–2)	A
(36)	Strychnine (57–24–9)	AO
(37)	*Styrene, monomer–skin (100–42–5)	ANO
(38)	*Styrene, oxide	R
(39)	Subtilisins (1395–21–7) (Proteolytic enzymes as 100% pure crystalline enzyme)	A
(40)	Succinonitrile (110–61–2)	N
(41)	Sucrose (57–50–1)	A
(42)	*Sulfallate (95–06–7)	T
(43)	Sulfotep–skin (3689–24–5)	A
(44)	Sulfur dioxide (7446–09–5)	ANO
(45)	Sulfur hexafluoride (2551–62–4)	AO
(46)	Sulfuric acid (7664–93–9)	ANO
(47)	Sulfur monochloride (10025–67–9)	AO
(48)	Sulfur pentafluoride (Dimer) (5714–22–7)	AO
(49)	Sulfur tetrafluoride (7783–60–0)	A

(50)	Sulfuryl fluoride (2699–79–8)	AO
(51)	*Sullfallate (95–06–7)	RT
(52)	Sulprofos (35400–43–2)	A
(53)	Systox–skin (8065–48–3)	AO

S. Hazardous substances beginning with the letter T:

(1)	2,4,5–T (2,4,5–Trichlorophenoxyacetic acid) (93–76–5)	AO
(2)	Talc (Nonasbestiform, resp. and fibrous) (14807–96–6)	AO
(3)	*Talc (containing asbestiform fibers)	AR
(4)	Tantalum, metal and oxide (7440–25–7)	AO
(5)	TEDP (Tetraethyldithionopyrophospate)–skin (3689–24–5)	AO
(6)	Teflon decomposition products	A
(7)	Tellurium and compounds (13494–80–9), as Te	AO
(8)	Tellurium hexafluoride (7783–80–4), as Te	AO
(9)	Temephos (3383–96–8)	A
(10)	TEPP–skin (107–49–3)	AO
(11)	Terephthalic acid (100–21–0)	A
(12)	Terphenyls (26140–60–3)	A
(13)	*2,3,7,8–Tetrachlorodibenzo–para–dioxin (TCDD) (1746–01–6)	RT
(14)	1,1,1,2–Tetrachloro–2,2–difluoroethane (Fluorocarbon 112a) (76–11–9)	AO
(15)	1,1,2,2–Tetrachloro–1,2–difluoroethane (Fluorocarbon 112) (76–12–0)	AO
(16)	*1,1,2,2–Tetrachloroethane–skin (79–34–5)	ANO
(17)	*Tetrachloroethylene (see Perchloroethylene)	
(18)	Tetrachloromethane (see Carbon tetrachloride)	
(19)	Tetrachloronaphthalene–skin (1335–88–2)	AO
(20)	Tetraethyl lead, as Pb–skin (78–00–2)	AO
(21)	Tetraethylene glycol diacrylate (17831–71–9)	I
(22)	1,1,1,2–Tetrafluoroethane	I
(23)	Tetrahydrofuran (109–99–9)	AO
(24)	Tetramethyl lead, as Pb–skin (75–74–1)	AO
(25)	Tetramethyl succinonitrile–skin (3333–52–6)	ANO
(26)	Tetranitromethane (509–14–8)	AO
(27)	Tetrasodium pyrophosphate (7722–88–5)	A
(28)	Tetryl (2,4,6–Trinitrophenylmethylnitramine)–skin (479–45–8)	AO
(29)	Thallium – soluble compounds, as Tl–skin (7440–28–0)	AO
(30)	*Thioacetamide (62–55–5)	T
(31)	4,4'–Thiobis (6–tert butyl–m–cresol) (96–69–5)	A
(32)	*4,4'–Thiodianiline	R
(33)	Thioglycolic acid (68–11–1)	A
(34)	Thiols (n–alkane monothiols)	N
(35)	Thionyl chloride (7719–09–7)	A
(36)	*Thiourea (62–56–6)	RT
(37)	Thiram (137–26–8)	AO
(38)	*Thorium dioxide (1314–20–1)	T
(39)	Tin (Metal) (7440–31–5)	AO
(40)	Tin, organic compounds, as Sn–skin	A
(41)	Tin oxide, and inorganic compounds, except SnH_4, as Sn	A
(42)	Titanium dioxide (13463–67–7)	A

(43)	*o–Tolidine–skin (119–93–7)	AN
(44)	*o–Tolidine–based dyes	N
(45)	Toluene–skin (108–88–3)	ANO
(46)	Toluene 2–4–diamine–skin (95–80–7)	I
(47)	*Toluene diisocyanate (584–84–9)	T
(48)	Toluene–2,4–diisocyanate (TDI) (584–84–9)	ANOR
(49)	p–Toluene sulfonyl chloride (98–59–9)	I
(50)	m–Toluidine–skin (108–44–1)	A
(51)	*o–Toluidine–skin (95–53–4)	ANORT
(52)	*o–Toluidine hydrochloride (636–21–5)	T
(53)	*p–Toluidine–skin (106–49–0)	A
(54)	Toxaphene (see Chlorinated camphene)	
(55)	Tremolite (see Talc, fibrous)	
(56)	*Treosulphan (299–75–2)	R
(57)	Tributyl phosphate (126–73–8)	AO
(58)	Trichloroacetic acid (76–03–9)	A
(59)	1,2,4–Trichlorobenzene (120–82–1)	A
(60)	1,1,1–Trichloroethane (see Methyl chloroform)	
(61)	*1,1,2–Trichloroethane–skin (79–00–5)	ANO
(62)	*Trichloroethylene (79–01–6)	ANO
(63)	Trichlorofluoromethane (Fluorocarbon 11) (75–69–4)	A
(64)	Trichloromethane (see Chloroform)	
(65)	Trichloronaphthalene (Halowax) (1321–65–9)	AO
(66)	Trichloronitromethane (see Chloropicrin)	
(67)	*2,4,6–Trichlorophenol (88–06–2)	RT
(68)	1,2,3,–Trichloropropane (96–18–4)	AO
(69)	1,1,2–Trichloro–1,2,2–trifluoroethane (Fluorocarbon 113) (76–13–1)	AO
(70)	Tricyclohexyltin hydroxide (Cyhexatin) (13121–70–5)	A
(71)	Tridymite (see Silica – Crystalline)	
(72)	Triethanolamine (102–71–6)	A
(73)	Triethylamine (121–44–8)	AO
(74)	Triethylene glycol diacrylate (1680–21–3)	I
(75)	Trifluorobromomethane (Fluorocarbon 13B1) (75–63–8)	AO
(76)	Trifluoromonobromomethane (Fluorocarbon 13B1, see Trifluorobromomethane)	
(77)	Trimellitic anhydride (552–30–7)	AN
(78)	Trimethylamine (75–50–5)	AI
(79)	Trimethylbenzene (25551–13–7)	A
(80)	Trimethyl phosphite (121–45–9)	A
(81)	Trimethylolpropane triacrylate (15625–89–5)	I
(82)	Trimethylolpropane trimethacrylate (3290–92–4)	I
(83)	2,4,6–Trinitrophenol (see Picric acid)	
(84)	2,4,6–Trinitrophenylmethylnitramine (see Tetryl)	
(85)	*2,4,6–Trinitrotoluene (TNT)–skin (118–96–7)	AO
(86)	Triorthocresyl phosphate (TOCP)–skin (78–30–8)	AO
(87)	Triphenyl amine (603–34–9)	A
(88)	Triphenyl phosphate (115–86–6)	AO
(89)	Tripoli (1317–95–9)	A
(90)	Trisodium phosphate (7601–54–9)	I
(91)	*Tris(aziridinyl)–para–benzoquinone (Triaziquone) (68–76–8)	R
(92)	*Tris(1–aziridinyl)phosphine sulfide (Thiotepa) (52–24–4)	RT
(93)	*Tris(2,3–dibromopropyl)phosphate (126–72–7)	T

(94)	*Trp-P-1 (and its acetate) (62450-06-0) (3-Amino-1,4-dimethyl-5H-pyrido[4,3-b] indole)	R
(95)	*Trp-P-2 (and its acetate) (62450-07-1) (3-Amino-1-methyl-5H-pyrido[4,3-b] indole)	R
(96)	*Trypan blue	R
(97)	Tungsten and compounds (7440-33-7), as W	AN
(98)	Turpentine (8006-64-2)	AO
	T. Hazardous substances beginning with the letter U:	
(1)	*Uracil mustard (66-75-1)	R
(2)	Uranium, natural compounds, as U, soluble and insoluble (7440-61-1)	AO
(3)	Urea	I
(4)	*Urethane (ethyl carbonate) (51-79-6)	RT
	U. Hazardous substances beginning with the letter V:	
(1)	Valeraldehyde (110-62-3)	A
(2)	Vanadium, as V_2O_5, dust and fume (1314-62-1)	ANO
(3)	Vegetable oil mists	A
(4)	*Vinyl acetate (108-05-4)	AN
(5)	Vinyl benzene (see Styrene)	
(6)	*Vinyl bromide (593-60-2)	A
(7)	*Vinyl chloride (75-01-4)	ANORT
(8)	Vinyl cyanide (see Acrylonitrile)	
(9)	*4-Vinyl cyclohexene (100-40-3)	AI
(10)	*Vinyl cyclohexene dioxide-skin (106-87-6)	A
(11)	*Vinyl halides	N
(12)	*Vinylidene chloride (1,1-Dichloroethylene) (75-35-4)	A
(13)	Vinyl toluene (25013-15-4)	AO
(14)	VM&P Naphtha (8030-30-6)	A
	V. Hazardous substances beginning with the letter W:	
(1)	Warfarin (81-81-2)	AO
(2)	Waste anesthetic gases and vapors	N
(3)	Welding fumes	A
(4)	*Wood dust; all soft and hard woods	AO
	W. Hazardous substances beginning with the letter X:	
(1)	Xylene (o-m-p-isomers) (1330-20-7)	ANO
(2)	m-Xylene α,α'-diamine (MXDA, meta-meta-xylenediamine) (1477-55-0)	A
(3)	*Xylidine (mixed isomers)-skin (1300-73-8)	AO
	X. Hazardous substances beginning with the letter Y:	
	Yttrium, metal and compounds, as Y (7440-65-5)	A
	Y. Hazardous substances beginning with the letter Z:	
(1)	Zinc chloride fume (7646-85-7)	AO
(2)	*Zinc chromates (13530-65-9; 11103-86-9; 37300-23-5), as Cr	A
(3)	Zinc oxide, fume and dust (1314-13-2)	ANO
(4)	Zinc stearate (557-05-1)	A
(5)	Zirconium compounds (7440-67-2), as Zr	AO

Statutory Authority: *MS s 182.655*

History: *8 SR 1949; 13 SR 2219; 17 SR 1456; L 1991 c 249 s 31*

5206.0500 HARMFUL PHYSICAL AGENTS.

Subpart 1. **In general.** The commissioner has determined that the list of harmful physical agents in subpart 3 shall be covered by the provisions of this chapter. The harmful physical agents list includes the majority of physical agents that may be encountered in Minnesota. Where there is a reasonably foreseeable potential for exposure to one or more of these physical agents at a level which may be expected to approximate or exceed the permissible exposure limit or the applicable action level the employer must provide training to employees as required in part 5206.0700.

Subp. 2. **Updating list.** The list of harmful physical agents shall be updated by the commissioner at least every two years.

Subp. 3. **Harmful physical agents list.**

A. Heat.

B. Noise.

C. Ionizing radiation. Any employer who possesses or uses by-product material, source material, or special nuclear material, as defined in the Atomic Energy Act of 1954 as amended, under a license issued by the Nuclear Regulatory Commission shall be deemed to be in compliance with the harmful physical agent provisions of the Employee Right-to-Know Act of 1983.

D. Nonionizing radiation.

Statutory Authority: *MS s 182.655*

History: *8 SR 1949*

5206.0600 INFECTIOUS AGENTS.

Subpart 1. **In general.** The commissioner has determined that the list of infectious agents in subparts 4 to 8 shall be covered by the provisions of this chapter. This list includes the majority of known communicable infectious agents which may be encountered in Minnesota. The list does not include all infectious agents nor will the list always be current. Employers must exercise reasonable diligence in evaluating their workplace for the presence of other recognized infectious agents and assure that employees are provided with the rights stated in this chapter. Training must be provided to employees on only those infectious agents to which employees may be routinely exposed; training need not be provided on all infectious agents on the list.

Subp. 1a. **Blood borne pathogens.** Blood borne pathogens are covered by Code of Federal Regulations, title 29, section 1910.1030. Compliance with the requirements of Code of Federal Regulations, title 29, section 1910.1030, meets the requirements of this chapter for blood borne pathogens. Employers who cover all reasonably anticipated infectious agent exposures as part of their Code of Federal Regulations, title 29, section 1910.1030, compliance programs shall be considered to be in compliance with the requirements of this chapter.

Subp. 2. **Updating list.** The list of infectious agents shall be updated by the commissioner at least every two years.

Subp. 3. **Codes for lists of infectious agents.** The lists of infectious agents in subparts 4 to 8 are coded as follows to designate a reference document which contains information concerning the particular agent:

A. "A" – Guidelines for Isolation Precautions in Hospitals, Centers for Disease Control, 1983.

B. "B" – Diagnostic Microbiology, Bailey and Scott's, Seventh Edition, 1990.

C. "C" – Control of Communicable Disease in Man, Abram S. Benenson, Editor; American Public Health Association, 1990.

D. "D" – Biosafety in Microbiological and Biomedical Laboratories, Centers for Disease Control, (1984), United States Department of Health and Human Services, Public Health Service (HHS publication number (CDC) 84-8395).

E. "M" – Reportable Disease List, Minnesota Department of Health, Revised January 1990.

F. "O" – Classification of Microorganisms on the Basis of Hazard, Appendix B-1, Centers for Disease Control and National Institute of Health, 1982.

Subp. 4. **Bacterial agents.** Bacterial agents:

A. Bacillus anthracis, ABCDM;
B. Bordetella, ABC;
C. Brucella, ABCDM;
D. Campylobacter, ABCDM;
E. Chlamydia, CM;
F. Corynebacterium diphtheriae, ABCDM;
G. enterohemorrhagic Escherichia coli, AC;
H. enteropathogenic Escherichia coli, AC;
I. Francisella tularensis, BCDM;
J. Haemophilus influenzae, ABCM;
K. Klebsiella pneumoniae, ABC;
L. Legionella, ACDM;
M. Leptospira interrogans, ABCDM;
N. Listeria monocytogenes, C;
O. Moraxella, C;
P. Mycobacteria, ABCDM;
Q. Mycoplasma pneumoniae, ABCM;
R. Neisseria gonorrhoeae, N. meningitidis, ABCDM;
S. Pasteurella (see Yersinia), ACM;
T. Pseudomonas, ABCD;
U. Salmonella, ABCDM;
V. Shigella, ACDM;
W. Staphylococcus aureus, ABCM;
X. Streptococcus pneumoniae, S. pyogenes, S. group A, ABCM;
Y. Treponema, BC;
Z. Vibrio Cholerae, V. fetus, V. parahemolyticus, ABCM; and
AA. Yersinia, ACDM.

Subp. 5. **Viral agents.** Viral agents:

A. Adenoviruses, AC;
B. AIDS agent (see Retrovirus);
C. Arboviruses, CM;
    (1) California virus;
    (2) Western equine encephalitis virus;
    (3) St. Louis encephalitis virus;
    (4) Eastern equine encephalitis virus;
D. Arenaviruses, Lassa Fever virus, ACD;
E. Coronavirus, C;
F. Coxsackie A and B viruses, ABC;
G. Creutzfeldt–Jakob virus, ACD;
H. Dengue virus, CD;
I. Ebola fever virus, AC;
J. Echoviruses, ABC;
K. Hemorrhagic fever agents, C;
L. Hepatitis–types A,B,C,E (non–A/non–B), unspecified, Delta, ACDM;
M. Herpes Viruses, ACD;
    (1) Simplex virus;
    (2) Varicella–zoster virus;
    (3) Cytomegalovirus;

(4) Herpes virus simiae;
(5) Epstein–Barr virus;
N. Human Immunodeficiency Virus (see Retrovirus) Type 1 and Type 2;
O. Influenza viruses, ACM;
P. Kuru, ACD;
Q. Lymphocytic choriomeningitis virus, CD;
R. Marburg virus, AC;
S. Measles virus, ACM;
T. Mumps virus, ACM;
U. Norwalk agent, C;
V. Parainfluenze virus, C;
W. Polioviruses, ABCDM;
X. Poxviruses, CD;
Y. Rabies virus, ACDM;
Z. Respiratory syncytial virus, AC;
AA. Retrovirus (Human Immunodeficiency virus, Human T–Lymphotropic Virus Type 1 and Type 2), CM;
BB. Rhinoviruses, C;
CC. Rotaviruses, C;
DD. Rubella virus, ACM;
EE. Variola (Smallpox), AC; and
FF. Yellow fever virus, ACM.

Subp. 6. **Fungal agents.** Fungal agents:*
A. Blastomyces dermatitidis, ACDM;
B. Coccidioides immitis, ABCD;
C. Histoplasma capsulatum, ABCDM;
D. Mucoraceae, C;
E. Paracoccidioides brasiliensis, C; and
F. Sporothrix schenckii, ACD.

*Laboratory risk only; no risk to patient–care personnel.

Subp. 7. **Parasitic Agents.**
A. Acanthamoeba, C;
B. Coccidia cryptosporidium, D;
C. Entamoeba histolytica, ACDM;
D. Enterobiasis, AC;
E. Giardia lamblia, AC;
F. Pediculus, AC;
G. Plasmodium – falciparum, C;
H. Pneumocystis carinii, C;
I. Sarcoptes scabiei, AC; and
J. Trichomonas, BC.

Subp. 8. **Rickettsial agents.***
A. Rickettsia prowazekki, C;
B. Rickettsia typhi, C;
C. Rickettsia rickettsii, C;
D. Rickettsia conorii, C;
E. Rickettsia australis, C;
F. Rickettsia sibirica, C;
G. Rickettsia akari, C;

H. Rickettsia tsutsugamushi, C;

I. Rickettsia quintana, C; and

J. Coxiella burnetti, C.

*Laboratory risk only; no risk to patient-care personnel.

Statutory Authority: *MS s 182.655*

History: *8 SR 1949; 13 SR 2219; 17 SR 1456*

5206.0700 TRAINING.

Subpart 1. **In general.** The requirements in items A to J apply to training programs provided to employees concerning hazardous substances, harmful physical agents, and infectious agents.

A. Training shall be made available by, and at the cost of, the employer.

B. The employer shall develop and implement a written Employee Right-to-Know program which, at a minimum, describes how the training, availability of information, and labeling provisions of this chapter will be met for hazardous substances, harmful physical agents, and infectious agents. The written program shall also include:

(1) A list of the hazardous substances known to be present using an identity that is referenced on the appropriate material safety data sheet. The list may be compiled for the workplace as a whole or for individual work areas.

(2) The methods the employer will use to inform employees of the hazards of infrequent tasks that involve exposure to hazardous substances, harmful physical agents, or infectious agents and the hazards associated with hazardous substances contained in unlabeled pipes in their work areas.

(3) Employers shall make the written Employee Right-to-Know program available, upon request, to employees, their designated representatives, and representatives of the Occupational Safety and Health Division.

(4) For infectious agents, a written exposure control plan that meets the requirements of Code of Federal Regulations, title 29, section 1910.1030, and covers all infectious agents to which employees may be exposed in the workplace meets the requirements of this chapter.

C. In multiemployer workplaces, employers who produce, use, or store hazardous substances in such a way that the employees of other employers may be exposed shall additionally ensure that the Employee Right-to-Know program developed and implemented under item B includes the following:

(1) the methods the employer will use to provide the other employers with a copy of the material safety data sheet, or to make it available at a central location in the workplace, for each hazardous substance the other employers' employees may be exposed to while working;

(2) the methods the employer will use to inform the other employers of any precautionary measures that need to be taken to protect employees during normal operating conditions and in foreseeable emergencies; and

(3) the methods the employer will use to inform the other employers of the labeling system used in the workplace.

D. Records of training provided under the requirements of this chapter must be maintained by the employer, retained for three years, and made available, upon request, for review by employees and representatives of the Occupational Safety and Health Division. At a minimum, training records must include:

(1) the dates training was conducted;

(2) the name, title, and qualifications of the person who conducted the training;

(3) the names and job titles of employees who completed the training; and

(4) a brief summary or outline of the information that was included in the training session.

E. Information and training programs may relate to specific exposure hazards; the common hazards of a broad class of hazardous substances, harmful physical agents, and in-

fectious agents; or to the hazards of a complete production operation, whichever is more effective. Specific information on individual hazardous substances or mixtures, harmful physical agents, and infectious agents must be available in writing for employees' use.

F. Access to a display device shall constitute compliance with the requirement for a written copy of required information which shall be readily accessible in the area or areas in which the hazardous substance, harmful physical agent, or infectious agent is used or handled, provided that a hard copy printout is available to the employee requesting it within 24 hours excluding nonworkdays.

G. Frequency of training:

(1) Training must be provided to an employee before initial assignment to a workplace where the employee may be routinely exposed to a hazardous substance, harmful physical agent, or infectious agent.

(2) Additional training must be provided to an employee before the time the employee may be routinely exposed to any additional hazardous substances, harmful physical agents, or infectious agents.

(3) All employees who have been routinely exposed to a hazardous substance, harmful physical agent, or infectious agent before January 1, 1984, and who will continue to be routinely exposed to those substances or agents, must be provided with training with respect to those substances and agents by July 1, 1984.

(4) Training updates must be repeated at intervals of not greater than one year. Training updates may be brief summaries of information included in previous training sessions.

H. The commissioner may, upon request of an employer or an employer's representative, certify an existing training program as complying with this chapter.

I. The employer shall maintain current information for training or information requests by employees.

J. Technically qualified individuals shall be notified of and may elect to participate in any training or update programs required to be provided under this part to employees who are not technically qualified individuals. The employer shall make a reasonable attempt to allow technically qualified individuals to attend training or update programs which may be held during the employee's scheduled work day.

Subp. 2. **Training program for hazardous substances.** Training for employees who may be routinely exposed to hazardous substances shall be provided in a manner which can be reasonably understood by the employees and must include the following:

A. the name or names of the substance including any generic or chemical name, trade name, and commonly used name;

B. the level, if any and if known, at which exposure to the substance has been restricted according to standards adopted by the commissioner, or, if no standard has been adopted, according to guidelines established by competent professional groups which have conducted research to determine the hazardous properties of potentially hazardous substances;

C. the primary routes of entry and the known acute and chronic effects of exposure at hazardous levels;

D. the known symptoms of the effects;

E. any potential for flammability, explosion, or reactivity of the substance;

F. appropriate emergency treatment;

G. the known proper conditions for use of and exposure to the substance;

H. procedures for cleanup of leaks and spills;

I. the name, phone number, and address of a manufacturer of the hazardous substance; and

J. a written copy of all of the above information which shall be readily accessible in the area or areas in which the hazardous substance is used or handled.

Subp. 3. **Training program for harmful physical agents.** The training program for employees who may be routinely exposed to harmful physical agents at a level which may be

expected to approximate or exceed the permissible exposure limit or applicable action levels shall be provided in a manner which can be reasonably understood by the employees and shall include the information required by the standard for that physical agent as determined by the commissioner including the following:

A. the name or names of the physical agent including any commonly used synonym;

B. the level, if any and if known, at which exposure to the physical agent has been restricted according to standards adopted by the commissioner, or, if no standard has been adopted, according to guidelines established by competent professional groups which have conducted research to determine the hazardous properties of potentially harmful physical agents;

C. the known acute and chronic effects of exposure at hazardous levels;

D. the known symptoms of the effects;

E. appropriate emergency treatment;

F. the known proper conditions for use of and/or exposure to the physical agent;

G. the name, phone number, and address, if appropriate, of a manufacturer of the equipment which generates the harmful physical agent; and

H. a written copy of all of the above information which shall be readily accessible in the area or areas in which the harmful physical agent is present and where the employees may be exposed to the agent through use, handling, or otherwise.

Subp. 4. **Training program for infectious agents.** Training for employees who are routinely exposed to infectious agents shall be provided in a manner which can be reasonably understood by the employees and must include the following:

A. a general explanation of the epidemiology and symptoms of infectious diseases including hazards to special at–risk employee groups;

B. an explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to infectious agents including blood and other infectious materials;

C. an explanation of the chain of infection, or infectious disease process, including agents, reservoirs, modes of escape from reservoir, modes of transmission, modes of entry into host, and host susceptibility;

D. an explanation of the employer's exposure control program;

E. an explanation of the use and limitations of methods of control that will prevent or reduce exposure including universal precautions, appropriate engineering controls and work practices, personal protective equipment, and housekeeping;

F. an explanation of the basis for selection of personal protective equipment, including information on the types, proper use, location, removal, handling, decontamination, and disposal of personal protective equipment;

G. an explanation of the proper procedures for cleanup of blood or body fluids;

H. an explanation of the recommended immunization practices, including, but not limited to, the HBV vaccine and the employer's methodology for determining which employees will be offered the HBV vaccine, and the efficacy, safety, and benefits of being vaccinated;

I. procedures to follow if an exposure incident occurs, method of reporting the incident, and information on the postexposure evaluation and medical follow–up that will be available;

J. information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials;

K. an explanation of the signs, labels, tags, or color coding used to denote biohazards;

L. an opportunity for interactive questions and answers with the person conducting the training session;

M. an accessible copy of the regulatory text of this standard and an explanation of its contents; and

N. how to gain access to further information and reference materials that must be made available in the workplace including the location, contents, and availability of pertinent materials that explain symptoms and effects of each infectious agent.

Statutory Authority: *MS s 182.655*

History: *8 SR 1949; 13 SR 2219; 17 SR 1456*

5206.0800 AVAILABILITY OF INFORMATION.

Subpart 1. **Data sheets.** A written document containing the information required in the training programs described in part 5206.0700, subparts 2 and 3 shall be available for each hazardous substance or harmful physical agent to which employees who are not technically qualified individuals are routinely exposed.

Where infectious agents are present, a written document containing the information required in part 5206.0700, subpart 4, shall be available. "Control of Communicable Disease in Man," published by the American Public Health Association, is one example of an acceptable written document.

Subp. 1a. **Manufacturer's responsibilities.** An employer who is a manufacturer of a hazardous substance or mixture of hazardous substances, or of equipment which generates a harmful physical agent, shall provide an employer who purchases the substance or equipment with the information necessary for the purchasing employer to comply with the requirements of part 5206.0700, subparts 2 and 3. The information shall be provided at the time of purchase and shall be current, accurate, and complete for each substance, mixture, or agent.

Subp. 2. **Data sheet for product mixture.** A material safety data sheet may be prepared on an entire product mixture if hazard test information exists on the mixture itself or adequate information exists to form a valid judgment of the hazardous properties of the mixture itself and the manufacturer indicates that the conclusions drawn are from some source other than direct testing on the mixture, information on the mixture will be as effective in protecting employee health as information on the ingredients, and the hazardous substances in the mixture are identified together with the information on the mixture.

Subp. 3. **Hazardous concentrations.** All components that are hazardous substances and are present in quantities above one percent by weight in a mixture must be listed on the material safety data sheet or equivalent data sheet. Whenever valid evidence indicates that a substance or components of a mixture are hazardous at concentrations less than one percent by weight, these ingredients must be listed and the required hazard information provided on manufacturer's labels and data sheets. Components identified as carcinogens shall be listed if the concentrations are 0.1 percent or greater. Substances and mixtures that are exempt from this requirement are described in part 5206.0400, subpart 2.

Subp. 4. **Impurity concentrations.** Impurities known to be present and in quantities below one percent by weight are exempt from the listing requirements on labels and data sheets unless known to the manufacturer to contribute substantially to the hazard of the mixture.

Subp. 5. **Form.** Provision of a material safety data sheet completed in accordance with Code of Federal Regulations, title 29, part 1910.1200, shall be prima facie proof of compliance with the information requirements of this chapter.

Subp. 6. **Providing data sheet.** Any person subject to the provisions of this chapter shall be released from the obligation to provide a specific employer who purchases a hazardous substance with a material safety data sheet if that person has previously provided the specific purchaser with the most recent version of the material safety data sheet.

Subp. 7. **Data sheet in research laboratory.** In a research laboratory, a material safety data sheet must be available for each hazardous substance used to produce a new mixture until the manufacturer is able to determine the data sheet information for the new mixture.

Subp. 8. **Alternative data sheet.** In lieu of a written document as required by this part, access to a display device shall constitute compliance if the information is readily accessible in the area or areas in which the hazardous substance is used or handled and a printout of the

information is available to the employee requesting it within 24 hours, excluding nonworkdays.

Statutory Authority: *MS s 182.655*

History: *8 SR 1949; 13 SR 2219; 17 SR 1456*

5206.0900 [Repealed, 17 SR 1456]

LABELING

5206.1000 LABELING HAZARDOUS SUBSTANCES.

Subpart 1. **Original shipping containers.** Original shipping containers containing a hazardous substance shall be labeled. The label shall provide substantially the same precautionary information as required under the training and information requirements in parts 5206.0700 and 5206.0800. At a minimum, original shipping containers must be tagged or marked with the identity of the hazardous substance; the appropriate hazard warning; and the name and address of the chemical manufacturer, importer, or other responsible party. In addition, a label may be a coded reference to an appropriate and accessible data sheet containing information required under part 5206.0700, subpart 2.

Subp. 2. **Compliance; accepted labels.** Labeling in compliance with the following regulations meets the requirements of this chapter:

A. pesticides labeled in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (United States Code, title 7, section 136 et seq.);

B. any food, food additive, color additive, drug, or cosmetic including materials intended for use as ingredients in products labeled in accordance with the requirements of the Federal Food, Drug, and Cosmetic Act (United States Code, title 21, section 301 et seq.);

C. distilled spirits (beverage alcohols), wine, or malt beverage labeled in accordance with the Federal Alcohol Administration Act (United States Code, title 27, section 201 et seq.);

D. any consumer products as defined in the Consumer Product Safety Act (United States Code, title 15, section 2051 et seq.) and labeled in accordance with the requirements of that act; or

E. any hazardous substance as defined in the Federal Hazardous Substances Act (United States Code, title 15, section 1261 et seq.) and labeled in accordance with the requirements of that act.

Subp. 3. [Repealed, 13 SR 2219]

Subp. 4. **Pipelines.** These container labeling requirements do not apply to pipes, piping systems, or pipelines in refineries or other workplaces nor to interstate or intrastate pipelines. Employees must be trained in the hazards associated with substances in the unlabeled pipes in their work areas in accordance with the requirements of this chapter.

Subp. 5. **Bulk transport.** Hazardous substances transported in bulk shall be labeled in accordance with applicable labeling requirements of the American National Standards Institute (ANSI) or the federal Department of Transportation Standard for Transportation of Hazardous Substances in Code of Federal Regulations, title 49, part 172, subparts D, E, and F.

Subp. 6. **Containers.** The employer may use signs, placards, process sheets, batch tickets, operating procedures, or other such written materials in lieu of affixing labels to individual stationary process containers, as long as the alternative method identifies the containers to which it is applicable and, at a minimum, includes the identity of the hazard and the appropriate hazard warning. The written materials shall be readily accessible to the employees in their work area throughout each work shift.

Subp. 7. **Other containers.** The employer shall ensure that each container of hazardous substances in the workplace that is not labeled in accordance with the requirements of this part, is labeled, tagged, or marked with at least the following information:

A. identity of the hazardous substance; and

B. appropriate hazard warning.

Subp. 8. **Immediate-use containers.** Immediate-use containers need not be labeled.

Statutory Authority: *MS s 182.655*

History: *8 SR 1949; 13 SR 2219*

5206.1100 LABELING HARMFUL PHYSICAL AGENTS; LABEL CONTENT.

Equipment or a work area that specifically generates harmful physical agents at a level which may be expected to approximate or exceed the permissible exposure limit or applicable action level shall be labeled. The label shall include:

A. the name of the physical agent; and

B. the appropriate hazard warning.

Statutory Authority: *MS s 182.655*

History: *8 SR 1949; 13 SR 2219*

5206.1200 CERTIFICATION OF EXISTING LABELING PROGRAM.

The commissioner may, upon the request of an employer or manufacturer, certify an existing labeling program as complying with the Employee Right-to-Know Act of 1983.

Statutory Authority: *MS s 182.655*

History: *8 SR 1949*

FARMING OPERATIONS TRAINING PLAN

5206.1300 PURPOSE.

The standards in parts 5206.1300 to 5206.1900 implement provisions of the Employee Right-to-Know Act of 1983, Laws of Minnesota 1983, chapter 316, which require the commissioner of the Department of Labor and Industry to develop and implement a training program for farming operations. These standards, which apply to farming operations only, require each employer who is engaged in a farming operation and employs more than ten employees or who is engaged in a farming operation and maintains a temporary labor camp and employs any of its residents to provide training and information to employees who are routinely exposed to hazardous substances or harmful physical agents.

Statutory Authority: *MS s 182.655*

History: *10 SR 623*

5206.1400 SCOPE.

Farming operations that employ more than ten employees or that operate a temporary labor camp and employ any of its residents must comply with all requirements of this chapter at the time the employer has more than ten employees or at the time the camp is maintained. Persons who only provide housing facilities for seasonal or temporary migrant agricultural workers employed by another employer are exempt from the requirements of parts 5206.1300 to 5206.1900. Farming operations that employ ten or fewer employees and do not maintain a temporary labor camp are exempt from the provisions of parts 5206.1300 to 5206.1900 except that label information must be furnished to employees or their representatives upon request as provided in Minnesota Statutes, section 182.654.

Statutory Authority: *MS s 182.655*

History: *10 SR 623*

5206.1500 DEFINITIONS.

Subpart 1. **Scope.** The terms used in parts 5206.1300 to 5206.1900 have the meanings given them in this part.

Subp. 2. **Data sheet.** "Data sheet" means a document such as a material safety data sheet (OSHA Form 20), operation standard, or placard which contains information required by Minnesota Statutes, section 182.653, subdivisions 4b and 4e regarding the physical, chemical, and hazardous properties of a substance or mixture and is used by an employer to communicate to an employee the information required under Minnesota Statutes, section 182.653, subdivisions 4b and 4e.

Subp. 3. **Employee.** "Employee" means any person suffered or permitted to work by an employer including any person acting directly or indirectly in the interest of or as a representative of an employer. It includes any child employed in accordance with Minnesota Statutes, chapter 181A.

Subp. 4. **Handler.** "Handler" means any person who handles, mixes, or applies hazardous substances.

Subp. 5. **Harmful physical agent.** "Harmful physical agent" means a physical agent determined by the commissioner as part of the standard for that agent to present a significant risk to worker health or safety or imminent danger of death or serious physical harm to an employee.

Subp. 6. **Hazardous substance.** "Hazardous substance" means a chemical or substance, or mixture of chemicals or substances, which:

A. is regulated by the Federal Occupational Safety and Health Administration under Code of Federal Regulations, title 29, part 1910, subpart Z;

B. is a pesticide used in agricultural operations registered with the United States Environmental Protection Agency (EPA) under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), section 3;

C. is either toxic or highly toxic; an irritant; corrosive; a strong oxidizer; a strong sensitizer; combustible; either flammable or extremely flammable; dangerously reactive; pyrophoric; pressure-generating; a compressed gas; a carcinogen; a teratogen; a mutagen; a reproductive toxic agent; or that otherwise, according to generally accepted documented medical or scientific evidence, may cause substantial acute or chronic personal injury or illness during or as a direct result of any customary or reasonably foreseeable accidental or intentional exposure to the chemical or substance; or

D. is determined by the commissioner as part of the standard for the chemical or substance or mixture of chemicals and substances to present a significant risk to worker health and safety or imminent danger of death or serious physical harm to an employee as a result of foreseeable use, handling, accidental spill, exposure, or contamination.

Subp. 7. **Nonhandler.** "Nonhandler" means any person who does not handle, use, or apply a hazardous substance but is exposed to hazardous substances such as in field work.

Subp. 8. **Incidental farm worker.** "Incidental farm worker" means any person who is not a handler of hazardous substances and is employed for not more than five days.

Subp. 9. **Routinely exposed.** "Routinely exposed" means a reasonable potential for exposure exists during the normal course of assigned work. It includes the exposure of an employee to a hazardous substance when assigned to work in a field where a hazardous substance has been applied to that field within the last 30 days. It does not include a simple walk through of an area where a hazardous substance is present.

Subp. 10. **Temporary labor camp.** "Temporary labor camp" means any facility arranged, paid for, or maintained by an employer in which that employer's seasonal or temporary agricultural workers are required to live as a condition of employment. A "temporary labor camp" may consist of one or more buildings or structures, tents, or vehicles. It also includes a barracks-type camp, in which sleeping quarters are arranged on the dormitory plan, and a family-type camp that provides individual dwelling quarters for single family units.

Statutory Authority: *MS s 182.655*

History: *10 SR 623*

5206.1600 HAZARDOUS SUBSTANCES AND HARMFUL PHYSICAL AGENTS.

Subpart 1. **Hazardous substances list.** The commissioner has determined that part 5206.0400, subpart 2 "Exemptions" and subpart 5 "List of hazardous substances" shall be incorporated by reference and shall be covered by the provisions of parts 5206.1300 to 5206.1900. The list of hazardous substances includes the majority of hazardous substances, including pesticides, that will be encountered in Minnesota. It does not include all hazardous substances and will not always be current. Employers shall exercise reasonable diligence in evaluating their farming operation with respect to other recognized hazardous substances and assure that employees are provided with the training required in part 5206.1700.

Subp. 2. **Harmful physical agents covered by this chapter.** The commissioner has determined that indoor heat shall be covered by the provisions of this chapter governing harmful physical agents. Where there is a reasonably foreseeable potential for exposure to heat in an indoor work environment where the temperature may be expected to reach or exceed the

permissible exposure limit, the employer must provide training to employees as required in part 5206.1700.

Statutory Authority: *MS s 182.655*

History: *10 SR 623*

5206.1700 TRAINING.

Subpart 1. **General.** The requirements in items A to G apply to training programs provided to employees concerning hazardous substances and harmful physical agents.

A. Training shall be made available by, and at the cost of, the employer.

B. Records of training provided under the requirements of this chapter must be maintained by the employer, retained for five years, and made available, upon request, for review by employees or their representatives and by the commissioner or his or her authorized representative.

C. Information and training programs may relate to specific exposure hazards; the common hazards of a group of hazardous substances; or to the hazards of a complete production operation, whichever is more effective. Specific information on individual hazardous substances or mixtures and harmful physical agents must be available in writing for employees' use.

D. Once training has been completed, an employer may request the employee to sign a statement that the employee has been trained as required by parts 5206.1300 to 5206.1900.

E. Frequency of training.

(1) Training must be provided to an employee prior to initial assignment to a worksite where the employee may be routinely exposed to a hazardous substance or harmful physical agent.

(2) Additional training must be provided to a nonhandler of hazardous substances prior to the time the employee may be routinely exposed to a hazardous substance or harmful physical agent with properties not covered in the generic training program. Additional training must be provided to a handler of hazardous substances prior to the time the employee may be routinely exposed to a new hazardous substance or harmful physical agent.

(3) Training must be provided at intervals of not greater than one year. Maintenance of a private applicator's certification or commercial applicator's license fulfills the annual training requirement.

(4) Employees performing the same or similar job assignments for more than one employer during the current growing season need only be trained once. The current employer must produce verification of the training, in a timely manner, upon request of the commissioner or an authorized representative of the commissioner.

F. The commissioner may, upon request of an employer or an employer's representative, certify a training program as complying with this chapter.

G. The employer shall maintain current information for training or information requests by employees.

Subp. 2. **Training program for hazardous substances.** Training for employees who may be routinely exposed to hazardous substances shall be provided in a manner which can be reasonably understood by the employees. For employees who do not understand English, training must be provided in a language understood by the employee.

A. Training program for handlers of hazardous substances.

(1) The oral training program for handlers of hazardous substances must include the following:

(a) the name or names of the substance including any generic or chemical name, trade name, and commonly used name;

(b) the level, if any and if known, at which exposure to the substance has been restricted according to standards adopted by the commissioner, or, if no standard has been adopted, according to guidelines established by competent professional groups which have conducted research to determine the hazardous properties of potentially hazardous substances;

(c) the known acute and chronic effects of exposure at hazardous levels (including routes of entry into the body);

(d) the known symptoms of the effects;

(e) any potential for flammability, explosion, or reactivity of the substance;

(f) appropriate emergency treatment;

(g) the known proper conditions for safe use of and exposure to the substance;

(h) procedures for cleanup of leaks and spills;

(i) the name, phone number, and address of a manufacturer of the hazardous substance; if the name and phone number of a manufacturer is not available, the phone number of a local poison control center or the Chemical Transportation Emergency Center (CHEMTREC) must be provided.

(2) A written copy of the information required in subitem (1) shall be readily accessible in the area or areas in which the hazardous substance is used or handled.

(3) In lieu of the oral training program required in subitem (1), employees who handle or use hazardous substances may obtain and hold a valid private applicator's certification from the Minnesota Department of Agriculture by completing the training program available through the county extension agent or may fulfill licensing requirements and secure a commercial applicator's license as provided for in Minnesota Statutes, section 18A.26, subdivision 2. Maintenance of a private applicator's certification or commercial applicator's license fulfills the annual training requirement of subpart 1, item E, subitem (3).

B. The oral training program for nonhandlers of hazardous substances must include the following:

(1) Proper conditions of exposure:

(a) where label information restricts reentry after application to other than when sprays have dried or dusts have settled, employees must be provided with the name of the substance, the time of application, and the reentry time; and

(b) where label information does not restrict reentry or restricts entry until sprays have dried or dusts have settled, employees must be instructed not to reenter a field treated with the pesticide until the spray has dried or the dust has settled since application.

(2) Routes of entry into the body:

(a) methods of preventing entry;

(b) emergency procedures to be followed in case of accidental exposure; and

(c) first aid and other applicable nonemergency procedures.

(3) Symptoms of exposure:

(a) possible allergies, symptoms, or sensitivities that may occur; and

(b) hazards to special at-risk groups such as children and pregnant women as information is available.

(4) Procedures to follow if symptoms appear.

(5) A written copy of the information in item B must be available for employee use. For employees who do not read English, a written notice in a language understood by the employee must be provided advising employees of the name and address of an agency that will translate the written information for them.

(6) Provision of information for medical treatment:

(a) Information required for medical treatment as described in unit (b) must be provided immediately upon request to an employee, or the employee's representative, who reports symptoms of exposure. If symptoms appear, the employee or employee representative shall request information for medical treatment from the employer.

(b) The employer shall give the employee or employee representative the name of the substance, the date it was applied, the rate at which it was applied, and either the material safety data sheet or the label for the substance applied.

(c) Employees who are unfamiliar with the community or who do not speak English must be provided information in a language understood by the employee concerning the appropriate agency to contact for assistance and medical treatment.

C. Hazardous substance training for incidental farm workers may be fulfilled by providing incidental farm workers with written information in a language understood by the employee. The written statement shall include the information required in item B, subitems (1) to (5). The written information shall be provided to incidental farm workers prior to assignment to work in a field where a hazardous substance has been applied.

D. The training program developed or approved by the Department of Labor and Industry meets the requirements of this chapter.

Subp. 3. **Training program for harmful physical agents.** The training program for employees who may be routinely exposed to heat in an indoor work environment where the temperature may be expected to reach or exceed the permissible exposure limit shall be provided in a manner which can be reasonably understood by the employees. For employees who do not understand English, training must be provided in a language understood by the employees.

A. Training on heat must include the following:

(1) the known proper conditions for exposure and recommended protective measures;

(2) the known acute and chronic effects of exposure at hazardous levels;

(3) the known symptoms of the effects;

(4) appropriate emergency treatment; and

(5) the effects of heat to special at-risk groups such as persons with heart disease and high blood pressure.

B. A written copy of the information in item A must be available for employees' use. For employees who do not read English, a written notice in a language understood by the employee must be provided advising employees of the name and address of an agency that will translate the written information for them.

C. In lieu of an oral training program, written documentation of the information required in item A may be provided to employees. For employees who do not read English, the written documentation must be in a language understood by the employee.

Statutory Authority: *MS s 182.655*

History: *10 SR 623*

5206.1800 AVAILABILITY OF INFORMATION.

Subpart 1. **Data sheets.** A written document containing the information required in the training programs described in part 5206.1700, subparts 2 and 3, shall be available for each hazardous substance or harmful physical agent to which employees are routinely exposed. Written information for hazardous substances must include the information required in part 5206.1700, subpart 2, item A, subitem (1), units (a), (c), (d), (f), and (g). Written information for heat must include the information required in part 5206.1700, subpart 3, item A.

Subp. 2. **OSHA Form 20.** Provision of a properly completed federal OSHA Form 20, "Material Safety Data Sheet," shall be prima facie proof of compliance with the information requirements of a data sheet or the requirements under Minnesota Statutes, section 182.653, subdivisions 4b, 4c, and 4e.

Subp. 3. **Translation of data sheet information.** For employees who do not read English, a written notice in a language understood by the employee must be included with the material safety data sheet indicating the name and address of an agency that will translate the information for the employee.

Subp. 4. **Data sheets not available.** If a material safety data sheet is not available from the manufacturer, label information must be provided to employees. The employer shall maintain a record of notices concerning the unavailability of data sheets.

Statutory Authority: *MS s 182.655*

History: *10 SR 623*

5206.1900 LABELING.

Employers engaged in a farming operation must comply with the labeling requirements for hazardous substances and harmful physical agents found in parts 5206.1000 and 5206.1100. The registered Environmental Protection Agency label meets the requirements of this part. Label information must be provided to employees or their representatives within 24 hours of the request.

Statutory Authority: *MS s 182.655*

History: *10 SR 623*

5206.2000 EFFECTIVE DATE.

Minnesota Rules, parts 5206.1300 to 5206.1900 are effective March 1, 1986.

Statutory Authority: *MS s 182.655*

History: *10 SR 623*