

Appendix C

Material Safety Data Sheets (MSDS): Explanation and Samples

EXPLANATION

The Hazard Communication Standard (29CFR1910.1200), also known as the Right-to-Know Law, requires the maintenance of Material Safety Data Sheets (MSDS) for every hazardous material located at the school (29CFR1910.1200(g)).

Manufacturers or distributors of hazardous materials are required to supply you with an MSDS when you purchase hazardous materials from the manufacturer or distributor. No standard form is required, but most manufacturers use either the American National Standards Institute (ANSI) form or the Occupational Safety and Health (OSHA) form. Both are described below. You may find after an inventory that you have in storage some materials for which no MSDS has been supplied. In that case, you should write your own using one of the forms described or download one from the Internet sources listed in Appendix H.



URL 6



URL 66

Other sections of the Hazard Communication Act (available on the Internet at the access.gpo site) that may be of interest include:

- (c) Definitions - very valuable!
- (d) Hazard determination
- (e) Written hazard communication program
- (f) Labels and other forms of warning

Appendix A to 1910.1200 - Health Hazard Definitions

Appendix B to 1910.1200 - Hazard Determination

Appendix C to 1910.1200 - Information Sources

ANSI MSDS

Section 1 - Chemical product and Company Identification

The name on the label and any synonyms; the manufacturer or distributor's name, address, emergency telephone number, date MSDS was prepared or revised

Section 2 - Composition, Information on Ingredients

The composition of mixtures; the identity of the hazardous ingredient(s) including both chemical and common name(s); Chemical Abstracts Registry Number (CAS); PEL (permissible exposure limit), TLV (threshold limit values), any other recommended limits

Section 3 - Hazard Identification

Appearance of material; health effects, signs and symptoms of exposure, mode of entry (inhalation, skin, ingestion), target organs

Section 4 - First Aid Measures

Emergency and first aid procedures to be followed after exposure

Samples

Section 5 - Fire-Fighting Measures

Extinguishing agents; danger of explosion; special fire fighting procedures; flash point and method of determination; flammable limits, lower explosion limit (LEL), upper explosion limit (UEL);

Section 6 - Accidental Release Measures

How to respond to spills, leaks, air release including containment and type of equipment to be used

Section 7 - Handling and Storage

Precautions to prevent overexposure; instructions for hygiene

Section 8 - Exposure Controls and Personal Protection

Engineering controls (including equipment and ventilation - local or mechanical); personal protective equipment (eye, skin - gloves and clothing, respiratory, including type of device); work and hygiene practices

Section 9 - Physical and Chemical Properties

Appearance, odor, physical state, pH, vapor pressure, vapor density, evaporation rate, boiling point, melting point, solubility in water, density or specific gravity

Section 10 - Stability and Reactivity

Stability; hazardous by-products of decomposition or burning; possible hazardous reactions; conditions to avoid; incompatibilities; possibility of hazardous decomposition or polymerization

Section 11 - Toxicological Information

Data used to identify hazard; acute data; carcinogenicity (National Toxicological Program - NTP, Occupational Safety and Health Administration - OSHA, International Agency for Research on Cancer - IARC ; reproductive effects; target organ effects; acute and chronic health hazards; medical conditions aggravated by exposure

Section 12 - Ecological Information

Impact on the environment should release occur

Section 13 - Disposal Considerations

Disposal, recycling, reclamation

Section 14 - Transport Information

Hazard materials description; hazard class, ID number (UN or NA)

Section 15 - Regulatory Information

Information from: Occupational Safety and Health Administration (OSHA); Toxic Substances Control Act (TSCA); Comprehensive Environmental Response, Composition, and Liability Act (CERCLA); Superfund Amendments and Reauthorization Act (SARA)

Section 16 - Other Information

Hazard rating; preparation and revision of MSDS; label information

OSHA

Identity as printed on label

Section I

Same as ANSI form Section 1 (See above)

Section II - Hazard Ingredients/Identity Information

Same as ANSI form Section 2 (See above)

Section III - Physical/Chemical Characteristics

Same as ANSI form Section 9 (See above)

Section IV - Fire and Explosion Hazard Data

Same as ANSI form Section 5 (See above)

Section V - Reactivity Data

Same as ANSI form Section 10 (See above)

Section VI - Health Hazard Data

Same as ANSI form Sections 3,4 and 11 (See above)

Section VII - Precautions for Safe Handling and Use

Same as ANSI form Sections 6, 7, and 13 (See above)

Section VIII - Control Measures

Same as ANSI form Section 8 (See above)