



**BERRYESSA UNION SCHOOL  
DISTRICT  
CHEMICAL HYGIENE  
PROGRAM  
SIERRAMONTE MIDDLE  
SCHOOL**

Updated September 2020



# CHEMICAL HYGIENE PLAN FOR SIERRAMONTE MIDDLE SCHOOL

## INTRODUCTIONS

This document describes the Chemical Hygiene Plan for Berryessa Union School District as required by OSHA's Occupational Exposure to Hazardous Chemicals in Laboratories Standard. 29CFR1910.1450.

In order to comply with the Standard, Berryessa Union School District has established a plan to ensure our workplace is capable of protecting employees and students from Health Hazards associated with Hazardous Chemicals in the laboratory, and capable of keeping exposures below the Permissible Exposure Limits (PEL) specified in 29CFR1910 Subpart "Z". Questions regarding this plan should be directed to Dan Norris, Director of MO&T.

This plan is made readily available to the employees of Berryessa Union School District, employee representatives and upon request to the Maintenance and Operations Department. The plan is located on the Berryessa Union School District's internet.

A review and evaluation of this program is conducted on an annual basis by the Safety Committee and updated as necessary.

The person responsible for implementation of this plan is Dan Norris, Director of MO&T. The assigned Chemical Hygiene Officer is Dan Norris. The District's Safety Committee will review and monitor compliance.

The committee comprised of the following personnel:

- Heidi Perry, Human Resources Manager
- Jill Tamashiro, Director of Student Services
- Virginia Pender, Principal of Ruskin Elementary
- Anthony Alberts, Vice Principal of Morrill Middle School
- Gokcen Ceran, Vice Principal of Sierramont Middle School
- Dan Norris, Maintenance Supervisor
- Cathy Aguilar, Administrative Secretary- Support Services
- Mike Schiller, Loss Control Manager, Santa Clara County SIG

- Dan Norris (Chair), Director of Maintenance, Operations and Transportation
- Colleen Fanciullo, Risk Management Consultant

Additional members may include other district employee/s.

## **STANDARD OPERATING PROCEDURES**

For laboratory work at Berryessa Union School District which involves the use of Hazardous Chemicals, standard operating procedures (SOP) have been addressed in order to reduce the potential Safety and/or Health Hazards caused by such use. These procedures include various engineering control measures such as maintenance procedures for these engineering controls including testing proper function of such equipment, the use of appropriate Personal Protective Equipment (PPE) and maintenance of such equipment.

The specific procedures implemented by Berryessa Union School District are as follows:

## **LABORATORY ACTIVITIES**

Laboratory activities and demonstrations represent an essential part of science teaching. Written materials and pictures can convey an enormous amount of information, but students fully understand the concepts related to science when they participate in or observe learning activities involving laboratory experiments and demonstrations. The Science Safety Handbook for California Public Schools will be followed during the operations of the science lab.

- Science teachers should advocate safety and have the information necessary to minimize risk.
- Students have a responsibility to themselves and their classmates to learn and observe safety practices in all participatory science activities.
- Education Code Section 51202 names what should be taught in most laboratory classes, including the following practices, skills, or areas of knowledge:
  - Proper eye-safety practices
  - Proper handling of glassware and glass tubes
  - Proper setup and handling of electrical equipment
  - Safe use of chemicals in the laboratory (correct storage, handling, labeling and disposal)
  - Safe, appropriate use of heat sources in the laboratory
  - Proper prevention of exposure to bloodborne pathogens from sources such as sharp instruments, tissues and body fluids
  - First-aid procedures
  - Prompt notification to appropriate supervisors or agencies of any dangerous or potentially dangerous conditions
  - Safe, appropriate, and humane treatment of animals
  - Prohibition against the use or presence of any venomous animals, poisonous plants or plant pests
  - Proper fire prevention and control techniques
  - Correct methods for cleanup after experiments
  - Proper behavior and courtesy for laboratory situations
  - Earthquake-safe behavior and evacuation routes (routes are available by the classroom door)

## **SAFE SCIENCE CLASSROOMS AND LABORATORY**

The California Code of Regulations (CCR), Title 24-Part 2, the California Building Code, Table 1004.1.2 identifies Occupant Load Factors for different types of building uses. For a science lab classroom in any kindergarten through grade 12 (K-12) educational space, the occupant load factor is 50 square feet per person. Classrooms shall not exceed the number of persons allowed.

Other design specifications related to science laboratories in the CCR, Title 5, Section 14030 (i)(1)(A-J) include the following:

Laboratories shall be designed in accordance with the planned curriculum

Size of the science laboratory is at least 1300 square feet, including storage and teacher preparation area

Science laboratory design is consistent with the requirements for proper hazardous materials management according to the California Science Safety Handbook Edition 2014

Accommodations are made for necessary safety equipment and storage of supplies (e.g., fire extinguishers, first-aid kit, master disconnect valve for gas and Safety Data Sheets (SDS)).

Secure storage areas are provided for volatile, flammable, and corrosive chemicals and cleaning agents.

Properly designated areas are provided with appropriate ventilation of hazardous materials that emit noxious fumes.

Exhaust-fume hoods, eye washes, and deluge showers are provided if applicable

Floor and ceiling ventilation is provided in areas where chemicals are stored

Room is provided for movement of students around fixed-learning stations

## **CHEMICAL INFORMATION**

The sites will ensure that hazardous materials are properly used and stored.

The sites will follow the CDE, in cooperation with the Division of Occupational Safety and Health, the list of chemicals used in a school program. This list includes the potential hazards and estimated shelf life of each chemical and chemical compound. The District will conduct regular removal and disposal of all chemicals whose estimated shelf life has elapsed through an environmental company.

The Chemical Hygiene Plan shall be readily available to employees, employee representatives, and, on request, the Chief of the Division of Occupational Safety and Health. The plan is posted on the District's website.

## **SAFETY PRECAUTIONS FOR SCHOOL SCIENCE LABORATORY**

Employee information and training on the hazards of chemicals present in the work area shall be provided at the time of an employee's initial assignment to his or her work area and prior to assignments involving new exposure situations. Refresher information and training shall be provided at intervals determined by the District.

The California Science Safety Handbook for California Public Schools Edition 2014 is readily available to employees and employee representatives. The plan should be followed at all times. The plan is posted on the District's website.

Bloodborne Pathogens (CCR, Title 8, General Industry Safety Orders, Section 5193) applies to all employees that are subject to reasonably anticipated exposure of their skin, eyes or mucous membranes, or through parenteral contact, to blood or other potentially infectious materials as a result of the performance of the duties. The Bloodborne Pathogen Plan is included in the Injury and Illness Prevention Plan (IIPP) and is posted on the District's website. A hard copy is available in the site front office.

Because science classes include a variety of hands-on laboratory activities in which the use of glassware and sharp instruments may result in cuts and abrasions, science teachers should be an integral part of, and comply with their school's exposure control plan. Science teachers will be trained annually as required by the IIPP.

The science teachers should be fully acquainted with first-aid procedures.

Understand the potential hazards of all the materials, processes, and equipment that will be used in the school lab.

Report any student injury or accident immediately on the school district's accident report form.

The use of approved eye-protection devices is required of all persons performing science activities that involve potential hazards to the eyes.

An eyewash station must be available in each laboratory/classroom.

Chemicals should be stored according to their compatibility group in a single safe and practical storage pattern.

Chemicals should be stored in chemically inert containers appropriate for the type and quantity of chemical.

Chemicals should be stored in a separate, locked area away from the classroom, if possible. A NFPA warning symbol should be placed on the front of the cabinet showing the highest hazard rating in each category of any chemical stored in the cabinet.

Regularly inspect chemicals and other supplies. Annually update the chemical inventory and discard any leaking, damaged, empty or unlabeled containers according to protocol.

Maintain a copy of the inventory for local emergency responders.

Maintain a complete inventory of every chemical in storage. Keep copies of the inventory and all SDS in the storage area. The chemical inventory should be reviewed and revised annually.

Chemicals should be purchased in a quantity sufficient to be used within one year. The date of receipt should be written on the label.

When labeling chemicals that have been removed from the original container, give the chemical name or trade name of the product on the label. The label must include the name of the chemical manufacturer along with the address and telephone number. Indicate the strength of the chemical, especially if it was prepared on site. Date all bottles.

Food for human consumption should not be stored in refrigerators or cabinets or on shelves used for storing chemicals or biological materials. Food should not be eaten in science laboratories or storage areas because of the danger of ingesting toxic or corrosive substances.

In an experiment or demonstration involving any flammable liquid (such as alcohol), care must be taken that any flame in the room is at an absolutely safe distance from the volatile liquid.

Teachers and students should be familiar with the operation of all fire extinguishers in the laboratory.

Teachers should be familiar with the location of all master controls for utilities, especially the master valve in each room for the gas outlets.

Good housekeeping is essential in the laboratory.

Laboratories should be locked when not in use.

The custodial staff should be alerted to general hazards they may encounter.

Safety Data Sheets (SDS) for new chemicals must be submitted to Dan Norris, Manager of Transportation and Operations. The chemical will be logged on the on-line program.

## **EVACUATION**

The school's evacuation plans, hazardous materials procedures are available to all employees. Important local telephone numbers are available in case of an emergency. The phone numbers are posted at the classroom doors.

## **KNOWLEDGE**

It is the responsibility of all science laboratory staff to have the knowledge and understanding of:

- Science Safety Handbook for California Public Schools Edition 2014
- Berryessa Union School District's Chemical Hygiene Plan
- Berryessa Union School District's Hazardous Waste Disposal plan
- Berryessa Union School District's Hazardous Communication plan
- Berryessa Union School District's Fire Prevention Plan
- Berryessa Union School District's IIPP (including but not limited to Bloodborne Pathogens)
- Use of Personal Protective Equipment
- Safety Data Sheet (SDS) procedure

- School Eye Safety: Sections 32030, 32031 and 32033 of the EC
- Earthquake Emergency Procedures as per ED 322829a0(B)(ii), 35295, 35296,35297, 40041.5
- Personal Protective Equipment
- Use of Animals in Public Instruction: EC Section 51540
- Know the storage, handling and safety requirements for each chemical used.

## **STEPS FOR ESTABLISHING A SAFE CHEMICAL STORAGE AREA**

Safe storage and use of chemicals and the supervision of laboratory safety are addressed in several sections of the EC and the CCR. Title 8. The following is a summary of some of the relevant stipulations in those codes:

- Each school that offers laboratory work should designate a trained member of the professional staff as the person “responsible for the review, updating, and carrying out of the school’s adopted procedures for laboratory safety”. (EC Section 49341[b])
- Ensure hazardous material are properly used and stored EC Section 49401.5[a])
- Berryessa Union School District’s procedures will be followed for the regular removal and disposal of all chemicals whose estimated shelf life has elapsed (EC section 4911[b]).
- The District’s Hazardous Communication Program for employees will be followed. Laboratories must maintain labels and SDS of incoming hazardous substances and ensure that they are readily available (CCR, Title 8, Section 5194[b])
- Chemicals should not be stored above eye level.
- Chemicals should not be stored under sinks; with the exception of household bleach and cleaners.
- Solids should be stored higher than liquids.
- No chemicals should be stored on the floor.
- Earthquake lips or barriers are in place on open storage shelves.
- Storage cabinets for corrosive and flammable chemicals are used appropriately.
- The storeroom door is self-closing and is locked.
- Compressed gas cylinders are secured upright to the wall, with caps in place. Flammable gases are separated from oxidizing gases by a one-hour fire wall or at least 25 feet.
- Staff members are adequately trained in chemical storage policies.
- Disposal of chemicals will be processed through the M&O Department, Dan Norris. Disposal of hazardous chemicals will be through a licensed contracting firm. A manifest will be maintained for three years.

## **CHEMICAL SEGREGATION**

The storage area should be to separate materials according to chemical specific need. Use the following broad hazard classes as a guide:

Store like materials with like. It is essential to segregate incompatible substances to prevent dangerous interactions. All newly purchased chemicals should have a label on them identifying

their hazard category (e.g. flammable, corrosive, oxidising, toxic etc.). A list of commonly used chemicals that should be segregated is listed below to assist storage.

Store the minimum stock levels of hazardous chemicals in the laboratory

Dispose of hazardous chemicals that are no longer required

Store large breakable containers, particularly of liquids, below shoulder height

Ensure containers and bottle tops are sealed properly to avoid unnecessary leakage of fumes / vapours

### **Storage of specific chemicals**

- Flammable Solvents - e.g. alcohols, toluene, hexane

The vapour above the liquid of these solvents represents the main source of danger from flammable liquids. This vapour is very susceptible to ignition by naked flames, sparks from electric switches (e.g. thermostats) electric motors or from sparks produced electrostatically by friction. Precautions must therefore be taken to prevent contact between any of these and concentrated vapours of flammable liquids.

Flammable solvents should be stored in specialised metal flammable solvent containers (cabinets), clearly labelled and positioned away from doors or other means of escape from the laboratory. It should be noted that no more than 50 litres of flammable material may be kept in any one laboratory room to reduce the risk of a serious laboratory fire. Working volumes of flammable solvents (i.e. those kept on the bench) should not exceed 500 ml (this volume can be easily contained should an accident/fire occur) and the solvent must be kept in a suitable closed vessel.

Flammable solvents should not be stored in fume hoods or vented cabinets, since the airflow will fan any fire and may also spread the fire to other parts of the building via the ventilation ducting.

Flammable solvents must never be stored in a refrigerator unless they are known to be spark proof. It is now departmental policy that all laboratory fridges are spark proofed to avoid the possibility of an internal light or thermostat control unit providing a source of ignition for vapours produced from flammable substances.

Flammable solvents must never be stored with oxidising agents (e.g. sodium [hypochlorite](#) – bleach, [iodine](#) and other halogens, hydrogen peroxide, nitric acid, potassium permanganate etc.) reducing agents (e.g. [sodium borohydride](#), [lithium aluminum hydride](#)...etc) or concentrated acids (e.g. concentrated sulphuric or hydrochloric acids).

A list of commonly used chemicals which should be segregated is listed below to assist storage. The SDS should always be consulted if further information is required on storage and chemical incompatibilities of a particular chemical substance.

- Chlorinated solvents (e.g. chloroform, dichloromethane (DCM) trichloroethylene)

Chlorinated solvents are best stored in ventilated cabinets separately from flammable (non-chlorinated) solvents because violent reactions can result from the mixing of certain flammable and chlorinated solvents and toxic gases such as phosgene (as well as hydrogen chloride and chlorine) can be produced. They should not be stored with alkali metals such as lithium,



potassium or sodium, since any mixing can cause an explosion. They can be stored in metal containers if ventilated storage is not available.

- Acids and Alkalis

Acids and alkalis are both corrosive substances. They must be stored separately since any accidental mixing of concentrated materials will generate large quantities of heat and fumes. They can be sorted in a vented or metal cabinet so long as they are in a containment tray to prevent any spillages.

Consideration must be given to the effects of corrosive fumes on any metal in the fittings and construction of the container. The use of ventilated cabinets are recommended where possible, allowing the removal of fumes at source. All containers / bottle tops must be suitably sealed to avoid unnecessary leakage of fumes (NB parafilm can be used to seal container lids but should be checked/replaced at regular intervals).

- Oxidisers (e.g. peroxides, perchlorates and nitrates)

Oxidising substances should be stored in a metal cabinet and away from organic matter such as wood and paper (NB oxidising agents should never be sorted in a wooden cabinet!). Oxidising agents must never be stored with flammable solvents or reducing agents since fires and explosions can result after any spillage, even without a naked flame or heat.

Perchloric acid is an extremely strong oxidising agent (especially in the concentrated form), which can react explosively with organic materials. It should ideally be stored separately on a metal tray of sand within a cabinet, away from organic materials or dehydrating agents such as sulphuric acid.

### **Incompatibility of Common Laboratory Chemicals**

The improper storage or mixing of chemicals can result in serious accidents and even disasters. Violent reactions could occur due to the storing or mixing incompatible chemicals. The following is a list of some incompatible common laboratory chemicals. Before storing or mixing any chemicals, consult this list or the chemicals' SDS. This is only a partial list that includes some of the more common academic laboratory chemicals. Please note that the absence of a chemical from the list does not mean that it is necessarily safe to mix it with any other chemical! You should always check with the SDS if in doubt.

<b>Chemical</b>	<b>Incompatible with</b>
Acetic acid	Chromic acid, nitric acid, hydroxyl compounds, ethylene glycol, perchloric acid, peroxides, permanganates
Acetylene	Chlorine, bromine, copper, fluorine, silver, mercury
Acetone	Concentrated nitric acid and sulphuric acid mixtures

Alkali and alkaline earth metals	Water, carbon tetrachloride or other chlorinated hydrocarbons, carbon dioxide, halogens
Ammonia (anhydrous)	Mercury(e.g., in manometers), chlorine, calcium hypochlorite, iodine, bromine, hydrofluoric acid (anhydrous)
Ammonium nitrate	Acids, powdered metals, flammable liquids, chlorates, nitrites, sulphur, finely divided organic combustible materials
Aniline	Nitric acid, hydrogen peroxide
Arsenical materials	Any reducing agent
Azides	Acids
Bromine	See chlorine
Calcium oxide	Water
Carbon (activated)	Calcium hypochlorite, all oxidizing agents
Chlorates	Ammonium salts, acids, powdered metals, sulphur, finely divided organic or combustible materials
Chromic acid and chromium trioxide	Acetic acid, naphthalene, camphor, glycerol. Alcohol, flammable liquids in general
Chlorine	Ammonia, acetylene, butadiene, butane, methane, propane (or other petroleum gases), hydrogen, sodium carbide, benzene, finely divided metals, turpentine
Chlorine dioxide	Ammonia, methane, phosphine, hydrogen sulphide
Copper	Acetylene, hydrogen peroxide
Cumene hydroperoxide	Acids (organic and inorganic)
Cyanides	acids

Flammable liquids	Ammonium nitrate, chromic acid, hydrogen peroxide, nitric acid, sodium peroxide, halogens
Fluorine	All other chemicals
Hydrocarbons (such as butane, propane, benzene)	Fluorine, chlorine, bromine, chromic acid, sodium peroxide
Hydrocyanic acid	Nitric acid, alkali
Hydrofluoric acid (anhydrous)	Ammonia (aqueous or anhydrous)
Hydrogen sulphide	Fuming nitric acid, oxidizing gases
Hypochlorites	Acids, activated carbon
Iodine	Acetylene, ammonia (aqueous or anhydrous), hydrogen
Mercury	Acetylene, fulminic acid, ammonia
Nitrates	Acids
Nitric acid (concentrated)	Acetic acid, aniline, chromic acid, hydrocyanic acid, hydrogen sulphide, flammable liquids and gases, copper, brass, any heavy metals
Nitrites	Acids
Nitroparaffins	Inorganic bases, amines
Oxalic acid	Silver, mercury
Oxygen	Oils, grease, hydrogen, flammable liquids, solids, and gases
Perchloric acid	Acetic acid, anhydride, bismuth and its alloys, alcohols, paper, wood, grease, oils

Peroxides, organic	Acids (organic or mineral), avoid friction, store cold
Phosphorus (white)	Air, oxygen, alkalies, reducing agents
Potassium chlorate	Sulphuric and other acids
Potassium perchlorate (see also chlorates)	Sulphuric and other acids
Potassium permanganate	Glycerol, ethylene glycol, benzaldehyde, sulphuric acid
Selenides	Reducing agents
Silver	Acetylene, oxalic acid, tartaric acid, ammonium compounds, fulminic acid
Sodium	Carbon tetrachloride, carbon dioxide, water
Sodium nitrite	Ammonium nitrate and other ammonium salts
Sodium peroxide	Ethyl and methyl alcohol, glacial acetic acid, acetic anhydride, benzaldehyde, carbon disulfide, glycerin, ethylene glycol, ethyl acetate, methyl acetate, furfural
Sulphides	Acids
Sulphuric acid	Potassium chlorate, potassium perchlorate, potassium permanganate (similar compounds of light metal, such as sodium, lithium)
Tellurides	Reducing agents

## **EMPLOYEE EXPOSURE**

Berryessa Union School District makes an initial determination of employee's exposure to any substance regulated by OSHA Standard (29CFR1910.1001 through 20CFR1910.1050) which requires monitoring if there is reason to believe exposure levels for substances routinely exceed the Action Level or in the absence of an Action Level, the Permissible Exposure Limit (PEL). If initial monitoring discloses employee exposure over the Action Level and/or Permissible

Exposure Limit, exposure monitoring and cessation of monitoring shall be in accordance with the relevant OSHA Standard.

Where the use of respirators is determined to be necessary to maintain exposure below permissible limits, appropriate respirator protection shall be provided at NO COST to employees. Respirators shall be selected and used in accordance with requirements in 29CFR1910.134(b)(d)(e) & (f).

Berryessa Union School District notifies employees of these results in writing either individually or by posting results in the staff lounge within fifteen (15) working days after receipt of monitoring results.

## **EMPLOYEE INFORMATION & TRAINING REQUIREMENTS**

Berryessa Union School District provides employees with information and training on hazardous chemicals in their work area, at time of initial assignment, and prior to assignments involving new exposure situations to ensure employees are apprised of the hazards of chemicals present in their work area. Initial information and training sessions for new employees are conducted by Human Resources.

The following information is conveyed to employees:

- The contents of the Occupational Exposure to Hazardous Chemicals in Laboratories Standard 29CFR1910.1450 and its appendices.
- The location and availability of the Chemical Hygiene Plan.
- The signs and symptoms associated with exposure to hazardous chemicals used in the laboratory
- The location and availability of known reference material on the hazards, safe handling, storage & disposal of hazardous chemicals found in the laboratory including but not limited to Safety Data Sheets (SDS) received from chemical suppliers.

In addition to above information, employees are trained on the following:

- Methods and observations which may be used to detect the presence or release of a hazardous chemical in the work area.
- The physical and health hazards of the chemicals.
- The measures employees can take to protect themselves from these hazards, including specific procedures which have been implemented to protect employees from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used.
- The applicable details of the Chemical Hygiene Plan.
- IIPP, including Bloodborne Pathogens

## **HAZARD IDENTIFICATION**

With respect to labels and Safety Data Sheets (SDS), Berryessa Union School District assures labels on incoming containers of hazardous chemicals are not removed or defaced and Safety Data Sheets that are received with incoming shipments of hazardous chemicals are entered in the SDS 3E system on-line and readily accessible to laboratory employees. A SDS poster giving instructions on receiving a safety data sheet from the database is available in the science lab.

For chemical substances developed in the laboratory, the following procedures have been implemented for the following circumstances:

- For known composition for chemical substances produce exclusively for laboratory use which are determined to be hazardous, the appropriate training is provided
- For unknown composition of chemicals produced as a by-product, the substance is assumed to be hazardous and the appropriate standard procedures are implemented
- For chemical substances produced for another user outside of the laboratory, Berryessa Union School District complies with the Hazard Communication Standard 29CFR1910.1200, including the requirements of preparation of SDS and labeling.

## **EMPLOYEE EXPOSURE**

Berryessa Union School District makes an initial determination of employee's exposure to any substance regulated by OSHA Standard (29CFR1910.1001 through 20CFR1910.1050) which requires monitoring if there is reason to believe exposure levels for substances routinely exceed the Action Level or in the absence of an Action Level, the Permissible Exposure Limit (PEL). If initial monitoring discloses employee exposure over the Action Level and/or Permissible Exposure Limit, exposure monitoring and cessation of monitoring shall be in accordance with the relevant OSHA Standard.

Where the use of respirators is determined to be necessary to maintain exposure below permissible limits, appropriate respirator protection shall be provided at NO COST to employees. Respirators shall be selected and used in accordance with requirements in 29CFR1910.134(b)(d)(e) & (f).

Berryessa Union School District notifies employees of these results in writing either individually or by posting results in the staff lounge within fifteen (15) working days after receipt of monitoring results.

## **MEDICAL PROGRAM**

Berryessa Union School District provides all employees who work with hazardous chemicals an opportunity to receive medical attention, including any follow-up examinations which the examining physician determines to be necessary, for the following circumstances:

- Whenever an employee develops signs or symptoms associated with a hazardous chemical to which the employee may have been exposed in the laboratory, the employee is provided an opportunity to receive an appropriate medical examination.
- Where exposure monitoring reveals an exposure routinely above the Action Level, or in the absence of an Action Level above the Permissible Exposure Limit (PEL), for an

OSHA regulated substance for which there are exposure monitoring and medical surveillance requirements. Medical Surveillance shall be established for the effected employee as prescribed by the particular OSHA Standard. (Medical Surveillance & Exposure requirements as per 29CFR1910.1001 through 20CFR1910.1050).

- Whenever an event takes place in the work area such as a spill, leak, explosion or occurrence resulting in the likelihood of a hazardous chemical exposure, the effected employee(s) is provided an opportunity for a medical consultation. This consultation is for the purpose of determining the need for a medical examination. An appropriate medical examination is provided as necessary through the Injury and Illness Prevention Plan (IIPP).

Medical examinations are provided by the District's Workers Compensation medical provider at no cost to the employee without loss of pay and at a reasonable time and place. Employees should report to the Workers Compensation Specialist any injury or illness immediately.

The physician shall be provided with the following:

- The identity of hazardous chemical(s) to which the employee may have been exposed
- A description of the conditions under which the exposure occurred including quantitative exposure data, if available
- A description of the signs and symptoms of exposure the employee is experiencing if any.

The Safety Data Sheets (SDS) are kept in the laboratory at each site.

Please be as specific as possible when referencing a SDS for a product. Separate SDS are maintained for products that have even very minor differences from others.

A written opinion is obtained from the examining physician for an examination or consultation which is required by the Standard. The opinion shall include:

- Any recommendation for further medical follow-up
- The results of the medical examination and any associated tests
- Any medical condition that may be revealed in the course of the examination which may place the employee at increased risk as a result of exposure to a hazardous chemical found in the workplace
- A statement the employee has been informed by the physician of the results of the consultation or medical examination and any medical condition that may require further examination or treatment.
- The written opinion shall not include any findings/diagnoses which is not related to an occupational exposure.

## **RECORDKEEPING**

Berryessa Union School District establishes and maintains for each employee an accurate record of any measurements taken to monitor employee exposure and any medical consultation and examination including tests or written opinions as required by the Standard. These records are kept, transferred, and made available in accordance with 29CFR1910.20, Access to Employee Exposure and Medical Records.

## **INFORMATION AND RESOURCES**

**SDS** are filed on-line and available to all employees.

Chemical inventory is available on-line and at the M&O Office.

The Chemical Hygiene Plan is reviewed and approved by the Safety Committee and is available on-line.

Berryessa Union School District OSHA required policies and procedures are available on-line.

## **APPENDIX**

Sierramonte Middle School science laboratory chemical inventory

The Chemical Hygiene Plan was approved by the Safety Committee.

# **APPENDIX**



## Listing of chemicals in the science labs

Location	ProductName (Exact Name on Product Label)	ManufacturerName	MfrPartnumber (if available)
Room 22 Chemical Storage Area	Magnesium Sulfate	Western Family	
Room 22 Chemical Storage Area	Sodium Thiosulfate Bag Kit	Nasco	99000014
Room 22 Chemical Storage Area	Calgiswab Calcium Alginate Swabs	Sprecturm Lab	174106
Room 22 Chemical Storage Area	Cornstarch Powder	Frey Scientific	73050
Room 22 Chemical Storage Area	Index Refraction Liquid	Cargalle Labs	
Room 22 Chemical Storage Area	Simulate Blood Kit	Wards	
Room 22 Chemical Storage Area	Calcium Nitrate	Baker Chemical	1395
Room 22 Chemical Storage Area	Sodium Sulfate	Mallinckrodt	8012
Room 22 Chemical Storage Area	Sodium Perborate	Mallinckrodt	7856
Room 22 Chemical Storage Area	Potassium Dichromate	Carolina	
Room 22 Chemical Storage Area	Manganese Dioxide	Carolina	
Room 22 Chemical Storage Area	Silver Nitrate	Frey Scientific	78070
Room 22 Chemical Storage Area	Silver Nitrate	Baker	0-3426
Room 22 Chemical Storage Area	Potassium Porsulfate	Baker Chemical	3238
Room 22 Chemical Storage Area	Kalliscope Rheoscopic Fluid	Scientific & Boreal	63691
Room 22 Chemical Storage Area	1996 Water Sample	Golden State Examination	
Room 22 Chemical Storage Area	Frozen Juice Sample	Golden State Examination	
Room 22 Chemical Storage Area	GSE Nutrient Solution	Golden State Examination	
Room 22 Chemical Storage Area	Vitamn C Solution	Golden State Examination	
Room 22 Chemical Storage Area	Muriatic Acid	Chemistry Lab	332
Room 22 Chemical Storage Area	Dextrose (Glucose)	Damon	S918J08
Room 22 Chemical Storage Area	Iron Filings	Scientific & Boreal	21944-10
Room 22 Chemical Storage Area	Iron Filings	The Science Shop	4942-35A
Room 22 Chemical Storage Area	Marble chips	Flinn Scientific	M0033
Room 22 Chemical Storage Area	Phenyl Salicylate	Scientific & Boreal	86516-02
Room 22 Chemical Storage Area	Magnesium Sulfate	Baker Chemical	2500
Room 22 Chemical Storage Area	Methylene Blue	Scientific & Boreal	83756-02
Room 22 Chemical Storage Area	Methylene Blue Powder	Damon	5919J38
Room 22 Chemical Storage Area	Methyl Cellulose	Boreal	83749-01
Room 22 Chemical Storage Area	Potassium Thiocyanate	Frey Scientific	577756
Room 22 Chemical Storage Area	Potassium Ferrocyanide	Flinn Scientific	P0053

Room 22 Chemical Storage Area	Potassium Chromate	Flinn Scientific	P0207
Room 22 Chemical Storage Area	Pepsin	Fisher Scientific	P-53
Room 22 Chemical Storage Area	Potassium Persulfate	Mallinckrodt	7076
Room 22 Chemical Storage Area	Pyrogallol	McGraw Hill	
Room 22 Chemical Storage Area	Sodium Carbonate	Carolina	
Room 22 Chemical Storage Area	Manganese Sulfate	Flinn Scientific	M0030
Room 22 Chemical Storage Area	Protoslo Protozoa	Carolina	
Room 22 Chemical Storage Area	Sodium Sulfate	Damon	5991J06
Room 22 Chemical Storage Area	Phenyl Salicylate	Frey Scientific	76922
Room 22 Chemical Storage Area	Potassium Aluminium Sulfate	Edmund Scientific	
Room 22 Chemical Storage Area	Sodium Chloride	Central Scientific	
Room 22 Chemical Storage Area	Sodium Hydroxide	Damon	5919J46
Room 22 Chemical Storage Area	Sodium Phosphate	Flinn Scientific	S0101
Room 22 Chemical Storage Area	Sucrose	Central Scientific	
Room 22 Chemical Storage Area	Sodium Citrate	Carolina	
Room 22 Chemical Storage Area	Wright's blood stain	Frey Scientific	79941
Room 22 Chemical Storage Area	Urea (Carbamide)	Spectrum	U1015
Room 22 Chemical Storage Area	Zinc Sulfate	The Science Shop	9966-35L
Room 22 Chemical Storage Area	Zinc Solids	Mallinckrodt	8693
Room 22 Chemical Storage Area	Sodium Carbonate Granular	Science & Boreal	86765-03
Room 22 Chemical Storage Area	Sodium Carbonate	Flinn Scientific	S0054
Room 22 Chemical Storage Area	Phenolphthalein	Frey	76891
Room 22 Chemical Storage Area	Benedict Qualitative Solution	Boreal	80695-03
Room 22 Chemical Storage Area	Ferric Oxide	Baker Chemical	2024
Room 22 Chemical Storage Area	Adrenaline Chloride	Science & Boreal	80052-01
Room 22 Chemical Storage Area	Methylene Blue	Science & Boreal	83756-02
Room 22 Chemical Storage Area	Sippin Saver	Rubbermaid	
Room 22 Chemical Storage Area	Bromothymol Blue	Matheson Coleman & Bell	BX1560
Room 22 Chemical Storage Area	Aluminum Shot	Damon	100335
Room 22 Chemical Storage Area	Cooper Shot	Damon	100336
Room 22 Chemical Storage Area	Amylase	Flinn	A0283
Room 22 Chemical Storage Area	Phenol Red	Science & Boreal	85080-01
Room 22 Chemical Storage Area	Pheno Red	Frey	76910
Room 22 Chemical Storage Area	Iron Filings	Science & Boreal	21944-10
Room 22 Chemical Storage Area	Ferrous Ammonium Sulfate	Damon	5929J36

Room 22 Chemical Storage Area	Methyl Orange	Science & Boreal	83765-02
Room 22 Chemical Storage Area	Glycerin	Science & Boreal	89304-02
Room 22 Chemical Storage Area	Instant Drosophila Medium	Carolina	
Room 22 Chemical Storage Area	Ferric Sulfate	Frey	S93243
Room 22 Chemical Storage Area	Buffer Capsules	Flinn	B0227
Room 22 Chemical Storage Area	Ferric Oxide	Baker	2024
Room 22 Chemical Storage Area	Ferrous Sulfate	Fisher Scientific	S93247
Room 22 Acid Cabinet	Aluminum Potassium Sulfate	Central Scientific	
Room 22 Acid Cabinet	Hydrochloric Acid	Scientific & Boreal	82242-01
Room 22 Acid Cabinet	Muriatic Acid	KemTek	
Room 22 Acid Cabinet	Muriatic Acid	Sunbelt Chemistry	
Room 22 Acid Cabinet	Muriatic Acid	Kleen Strip	GMA58
Room 22 Acid Cabinet	Nitric Acid	BWR	4815*6
Room 22 Acid Cabinet	Nitric Acid	Science Shop	6420*70E
Room 22 Acid Cabinet	Ascorbic Acid	Scientific & Boreal	80570
Room 22 Flammable Cabinet	Denatured alcohol	Jasco	
Room 22 Flammable Cabinet	Denatured alcohol	Klean Strip	
Room 22 Flammable Cabinet	Dichloromethane	Frey Scientific	73560
Room 22 Flammable Cabinet	Amyl Alcohol	Frey Scientific	70990
Room 22 Flammable Cabinet	2 Propanol	Carolina	
Room 22 Flammable Cabinet	N Propyl Alcohol	Mallinckrodt	7169
Room 22 Flammable Cabinet	Dichloromethane	Frey	73560
Room 22 Flammable Cabinet	Ammonia	Scientific & Boreal	29086
Room 22 Flammable Cabinet	Aromatic Ammonia	AnPak Drugs	
Room 22 Flammable Cabinet	Ammonia Chloride	Carolina	
Room 22 Flammable Cabinet	Lithium Metal Rods	Frey Scientific	578959
Room 22 Flammable Cabinet	Sodium	Flinn Scientific	S0450
Room 22 Flammable Cabinet	Sodium Lumps	Frey Scientific	573825
Room 22 Flammable Cabinet	Potassium Sticks	Flinn Scientific	P0204
Room 22 Blue Portable Cabinet	Bromthymol Blue Indicator	Flinn Scientific	B0047
Room 22 Blue Portable Cabinet	Methyl Orange	Flinn Scientific	M0078
Room 22 Blue Portable Cabinet	Phenol Red	Flinn Scientific	P0101
Room 22 Blue Portable Cabinet	Bromthymol Blue	Flinn Scientific	B0233
Room 22 Blue Portable Cabinet	Red Cabbage Extract Universal Indicator	Flinn Scientific	U0014
Room 22 Blue Portable Cabinet	Phenol Red	Flinn Scientific	P018
Room 22 Blue Portable Cabinet	Methyl Orange	Frey Scientific	S71410
Room 22 Blue Portable Cabinet	Bromothymol Blue	Frey Scientific	S93146
Room 22 Blue Portable Cabinet	Phenol Red Indicator	Frey Scientific	S93322
Room 22 Lower Cabinet	Sodium	Flinn Scientific	AP8916A
Room 22 Lower Cabinet	Mineral Oil	Flinn Scientific	AP8916B
Room 22 Lower Cabinet	Sodium Acetate	Flinn Scientific	S0037
Room 22 Lower Cabinet	70% Isopropyl Alcohol	Top Care	
Room 22 Lower Cabinet	Glycerin	The Chemistry Store	
Room 22 Lower Cabinet	Ammonia	Sunny Select	
Room 22 Lower Cabinet	Pine Sol	Clorox	
Room 22 Lower Cabinet	Milk of Magnesea	Rite Aid	
Room 22 Lower Cabinet	Antacid	CVS	

Room 22 Lower Cabinet	Mylanta	Infirst Manufacturer	
Room 22 Lower Cabinet	Iodine Tinture	Humeo	
Room 22 Lower Cabinet	Iodine Tinture	Rite Aid	
Room 22 Lower Cabinet	Iodine	Science & Boreal	82575-02
Room 22 Lower Cabinet	Calcium Sulfate	Carolina	
Room 22 Lower Cabinet	Rheoscopic Fluid	NovaStar	63691-00
Room 22 Lower Cabinet	Biuret Reagent	Science & Boreal	80880-05
Room 22 Lower Cabinet	Heartburn Relief	CVS	
Room 23 Under Sink	Atomic Glow	Steve Spangler Sci	
Room 23 Under Sink	H2 Orange	Envrox	
Room 23 Under Sink	H2 Orange	Envrox	
Room 23 Under Sink	Remarkable Board Cleaner	Quartet	#550
Room 23 Under Sink	Pearl Swirl Fluid	Steve Spangler Sci	
Room 23 Under Sink	Phenol Red Indicator	Taylor Technologies	R-0004
Room 23 Upper Cabinets	Metal Cleaner and Polish	Triple S	
Room 23 Upper Cabinets	Write Away Ink and Graffiti Remover	ZEP	
Room 23 Upper Cabinets	Lysol Disinfectant	Lysol	
Room 23 Upper Cabinets	Bleach	Clorox	
Room 23 Upper Cabinets	Bleach	Nice	
Room 23 Upper Cabinets	Magnesium Sulfate	Western Family	

In compliance with the California Department of Education's Science Safety Handbook, 2014