

Fire and Life Safety Program

San Bernardino Valley College 701 South Mount Vernon Avenue San Bernardino, California 92410 &

> Crafton Hills College 11711 Sand Canyon Road Yucaipa, California 92399

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Policy Statement

It is the policy of the San Bernardino Community College District to provide a safe learning and work environment for its students, employees, and visitors. In order to uphold this, we have taken proactive steps to make safety a top priority at all times and prepare for potential hazards, such as fire related accidents.

Purpose

The purpose of this fire prevention program is to identify, reduce, and eliminate the causes of fire and to comply with Cal/OSHA regulation Title 8 CCR §3221 to prevent the loss of life and property by fire. It provides employees, and students with information and guidelines which will assist them in recognizing, reporting and controlling fire hazards.

Scope and Application

Fires, like all other types of accidents, are largely preventable. This program applies to all personnel of the institute that may come across fire hazards, flammable materials, and fire protection equipment. The SBCCD Fire and Life Safety Program provides:

- Examples of common causes of fires, as well as potential fire hazards and the proper means of handling and storing potentially flammable materials.
- Identifies the campus department(s) responsible for maintaining equipment and systems installed to prevent or control ignition or fires and controlling the accumulation of flammable or combustible material.
- Describes good housekeeping procedures necessary to ensure the control of accumulated flammable and combustible waste material and residues to avoid a fire emergency.
- > Examples of potential fire hazards that faculty, staff, and students may be exposed to on campus.

Responsibilities

Program Administrator

The College President is the Program Administrator, the Vice President of Administration is the designee, and both have the authority and responsibility for implementing and maintaining this Program for their respective campuses.

Assigned campus designees are as follows:

Vice President of Administrative Services/SBVC, Site Safety Officer San Bernardino Valley College Tel: (909) 384-8958 & Vice President of Administrative Services/CHC, Site Safety Officer Crafton Hills College Tel: (909) 389-3210 The Program Administrators and designees may be assisted in their duties by the SBCCD Environmental Health and Safety Administrator. The EH&S Administrator can be reached at (909) 388-6935 during regular business hours or <u>EHS@SBCCD.edu</u>.

The duties of the FLSP Administrator include, but are not limited to the following:

- > Overall implementation of the Fire and Life safety Plan.
- > Ensure fire extinguisher are inspected monthly and serviced annually.
- > Develop methods for abating workplace hazards.
- > Maintaining copies of training documents.
- Coordinate with Safety & Risk Management to ensure training resources/consultative services are available to Managers and employees.
- > Ensure that workplace hazards are abated in a timely and effective manner.

Safety & Risk Management Department

- Monitor compliance with the California Health & Safety Code, Title 22, California Code of Regulations (CCR), and Title 40, Code of Federal Regulations (CFR).
- Facilitate or coordinate training for all SBCCD employees ensuring managers are familiar with the health and safety hazards to which employees under their immediate direction or control may be exposed, as well as applicable laws, regulations, and SBCCD safety rules and policies.

Managers

Managers are responsible for informing employees of potential fire hazards in the workplace specific to their work assignments. In addition, each manager shall instruct employees on those parts of the fire and life safety program applicable for the employees to protect themselves and respond in the event of an emergency.

All SBCCD employees are responsible for being familiar with the information contained in this program and maintaining a safe working environment. The failure of any SBCCD employee to adhere to the provisions of this program may be subject to progressive disciplinary action, up to and including termination, as outlined in the California Education Code.

Program Elements

Common Causes of Fires





Fire Hazard Prevention

Employees and students can all practice safety precautions to minimize the risk of fires. The following is a general preventive measures list to apply everyday:

- Minimize the storage of combustible materials. Make sure the storage of said materials are properly maintained and inspected.
- Avoid portable heaters. If a heater is necessary, then keep combustible material away from heaters.
- Ensure that evacuation route is clearly labeled on the school floor plan and place it adjacent to the classroom door.
- Make sure that doors, hallways, stairs, and other exit routes are kept free of obstructions and rubbish.
- Dispose of rubbish daily to avoid the accumulation of potentially flammable materials.
- Use nonflammable products whenever possible, and store flammable materials in well-ventilated areas away from identified ignition sources.
- Check electrical appliances and cords regularly and disconnect appliances where practical.
- Avoid overloading electrical outlets and keep wiring away from doorways, windows, or under carpeting.
- Do not use candles or open flames in classrooms, unless approved. More information found in Potential Fire Hazards Policy section.
- Ensure that heating units are safeguarded.
- All gas leaks must be reported immediately to the Manager and the Director of Maintenance & Operations.
- Clean up hazardous material spills immediately. Call the Safety & Risk Management Department for guidance if needed.

Laboratories contain many hazardous materials that can create unsafe environments when working in them. Extra precautions should be taken when working in a laboratory environment, such as:

- Ensuring that flammable liquids are stored properly and only dispensed from an approved safety container. •••
- ** Incompatible chemicals should not be stored next to each other as an interaction may occur and cause a fire or explosion.
- Survey chemicals annually and discard any that are obsolete or show signs of decomposition.
- Order and store the minimum supply of chemicals that are necessary to perform normal laboratory functions.
- Ensure spills are cleaned up immediately.
- Keep Safety Data Sheet readily available in each laboratory.

Potential Fire Hazards Policy

The following restrictions apply to the use of candles, incense, potpourri, plug-in air fresheners, and other open flame devices in any SBCCD facility:

1. Plug-in Air Freshener Devices

Plug-in air freshener devices are prohibited in all SBCCD facilities.

2. Candles/Open Flame Devices

Candles and any open flame device (including incense and potpourri burners, torches, fueled lamps, etc.), except as noted in #3 below, are prohibited in all SBCCD buildings.

3. Exception: Candles and Open Flame Devices (in conjunction with recognized religious activities)

The use of candles and the burning of incense in any SBCCD facility is prohibited except in conjunction with recognized religious activities. The use of candles or the burning of incense may be approved in compliance with the following conditions:

- To obtain permission for candle or incense use for recognized religious purposes, an individual must submit a written statement identifying the religious celebration and the nature of the use of candles or incense. Requests must be submitted at least seven (7) days in advance of the requested date to Safety and Risk Management Department. Approval will be granted for specific dates and location only.
- Candles/incense may not be left unattended while burning.
- Candles must be of a low flame variety and must be placed in a properly fitting menorah or in a sturdy. non-combustible container.
- When used, it is recommended that candles should be completely enclosed in a tip-resistant noncombustible container constructed to be self-righting if placed in a freestanding position. The container, if tipped, must be capable of containing the entire candle, dripping wax, and any heat within the container. No candle or open flame device shall be placed in a polystyrene holder or decoration.
- Candles and/or open flame devices must not be placed on windowsills or other areas that are unstable or, where they could come into contact with any readily combustible materials, such as drapes or curtains. All such items must be secured at least three (3) feet away from the open flame.
- Candles/incense must not be used in close proximity to heat or smoke detectors or sprinkler heads in such a way that heat, or smoke might activate the device.
- Approved cone incense must be burned in a noncombustible container or a noncombustible surface with adequate insulating properties to avoid damage to the surface upon which it is placed. Approved use of stick incense must be burned in such a manner that hot ashes do not contact any combustible material or cause damage to any surface upon which they fall.

- Candles and/or open flame devices shall be lit only during the ceremony or function. Flames will be immediately extinguished at the conclusion of the ceremony or function.
- Candles and/or open flame devices will not be permitted in areas where occupants are standing in aisles or exits.

4. Food Service Operators- Use of Solid Alcohol (Sterno) Food Heating Devices

Solid alcohol (Sterno) heating of food is permitted when the following requirements are complied with:

- Sterno use is permitted in public space, only, it is not permitted in private office space, or other non-public space. Only College Food Service personnel or designated vendors or contractors shall be allowed to utilize Sterno heating devices, providing they are made with the Solid Alcohol.
- A 10-pound BC dry chemical extinguisher, or Type K extinguisher, shall be available within ten (10) feet of the serving table or tables.
- The use of secondary containers for Sterno, i.e., fuel holders with cover, is mandatory. Proper tools must be available for the smothering of the flame if needed, i.e., snuffer paddle.
- All chafing racks and beverage urns using Sterno shall be placed on non-combustible mats, ceramic or metal trays extending at least eight inches beyond the Sterno container in each direction, to prevent accidental contact with any combustible materials.
- Sterno shall be placed under a food or beverage tray before lighting. Sterno shall only be lit by means of a butane lighter or long handled match. Chafing racks or beverage urns shall not be moved while Sterno are lit.
- Only regular cloth table covers shall be used. All table decorations must be flame resistant. Combustible material such as plates, napkins, plastic utensils, cups, and similar products shall be separated by a minimum of three feet from Sterno.
- Sterno must be immediately extinguished when the food tray is empty or no longer used. When the event is over, all Sterno must be extinguished immediately, capped, and removed from facility.

5. Open Flame in Laboratories

Approved laboratory spaces may operate attended open flame devices, such as Bunsen burners, so long as all established safety procedures are followed.

Risks of Open Flames:

- Using open flames near flammable solvents or other combustible materials may cause flash fires, explosions, rapid spread of fire, and generate toxic combustion products.
- Faulty or leaking Bunsen burners or hoses can cause highly flammable gas to escape.
- Open flames in biological safety cabinets creates turbulence that disrupts the pattern of HEPA-filtered air being supplied to the work surface, contaminating your work.

Operating with or near an Open Flame:

- Use a sparking tool to ignite fires rather than matches or butane lighters.
- Always check gas hose connections before use to ensure they are tight and not leaking.
- Do not use Tygon tubing or plastic tubing to connect burners to gas outlet. Use Bunsen burner flexible tubing designed to meet the American Gas Association's test standards.
- Flammable gases and vapors travel distances quickly. Students and faculty should avoid producing clouds of vapor that can ignite and flashback to you.
- Never leave open flames unattended for any length of time.
- Do not use an open flame or other high heat source within 6 feet of a container of flammable liquid.
- Use an open flame in a fume hood whenever possible. Remove all flammable and combustible liquids from the fume hood. Storage of these liquids as reagents or chemical waste is not allowed within a fume hood.
- Have a Standard Operating Procedure in place to ensure equipment or gas is shut off between uses.
- ✤ Have an emergency shut-off valve that is accessible.

6. Gas Barbecue Grills

Gas barbecue grills are permitted when the following conditions are met:

- Minimum distance of 20' from the building (no indoor grilling).
- Grills are located on a non-combustible surface, such as a sidewalk.
- Propane tanks shall not be stored inside buildings without the approval of the Safety & Risk Management Department. Storage must comply with NFPA 58.
- A fire extinguisher is readily available, and staff has been trained on how to properly use it.

7. Pyrotechnics and Open Flame Devices for Special Effects

Contact the Vice President of Administrative Services, Police Department and the Safety & Risk Management Department for review/approval of pyrotechnics or open flame devices for special effects.

8. Electric Portable Space Heater

All Portable space heaters must comply with the California Fire Code and must be verified by the Safety & Risk Management Department for compliance. Where it is determined by the Office of Facilities, that the building HVAC system cannot maintain the approved temperature set point range, the Office of Facilities will provide the space heater if it is determined that one is needed. This policy will better allow the Office of Facilities of Facilities to determine what HVAC systems need maintenance/replacement and will reduce the excessive electrical load and potential safety hazards created by non-compliant space heaters.

Portable Electric Heaters are regulated by Section 603.9 of the California Fire Code and must comply with all the following:

- Review and approval of the heater make, model, location, UL listing.
- Maintain the heater at least 3 feet away from materials or objects that can catch fire, including people to avoid injury.
- Heater must have a thermostat and overheat protection.
- Heater must have an automatic shut-off to turn the heater off if it tips over.
- Heater must function only using a timer to prevent heaters from running unattended.
 - Simple "on/off" or "high/low" switches are not permitted.
- Heater and cord must not block or interfere with foot traffic, and never block an exit.
- Heater must be plugged directly into the wall outlet. Never use an extension cord.
- Heater must only be operated while on the floor.
- Heaters with broken or damaged parts shall not be used.

Fire Extinguishers

Fires are classified into four different classifications depending on the type of materials or fuels involved. The type of fire determines the type of extinguisher used to extinguish it. Accordingly, all fire extinguishers are identified with common symbols to indicate the type of fire that the extinguisher will be most effective on. Fire Extinguishers located throughout the campus are typically rated for use on Class A, Class B and/or Class C fires and can used effectively on any such fire.

Fire Classifications



Training

The SBCCD Fire and Life Safety Program Administrator is responsible for ensuring the following employee training:

- Informing the employees of the fire hazards of the materials and processes to which they are exposed.
- Provide all employees with the general principles of fire extinguisher use and the hazards involved with incipient stage firefighting upon initial employment and at least annually thereafter.
- Provide employees who have been designated to use firefighting equipment as part of an emergency action plan with training in the use of the appropriate equipment upon initial assignment and at least annually thereafter.
- Provide employees with good housekeeping practices.
- Provide employees with information on proper response and notification in the event of a fire, and also on evacuation procedures.

The Safety & Risk Management Department shall retain copies of training documents.

Fire Drills:

Always take fire drills seriously and evacuate the school when the alarm sounds. Fire drills help to ensure that the faculty and students are aware how to evacuate their work areas and faculty may need to perform fire drill duties in the event of an emergency. One must always be familiar with the location of the nearest fire alarm and extinguisher, and these should always be labeled and inspected for proper operation on a regular basis.

Fire Extinguisher Training:

Before using a fire extinguisher to put out a fire one must be trained on the proper handling. If a fire breaks out and you have not received approval and training for fighting a fire, then you should immediately evacuate the facility and call 911 or the fire department. If you are approved and decide to fight a fire then you should first consider the following: the size of the fire, the evacuation route, and the amount of heat, smoke, and fumes from the fire.

If you are able to contain the fire on your own through the use of a fire extinguisher, then make sure to follow the steps of the PASS acronym:

P: Pull the pin on the extinguisher.

- A: Aim the extinguisher low at the base of the flame while keeping a distance of approximately 6 to 10 feet.
- **S**: Squeeze the trigger. The fire extinguisher will run out sometime between 5 to 25 seconds.
- **S:** Sweep from side to side. Try to extinguish the fire in an organized pattern.

Ensure that the fire it completely out because a smoldering fire can burst into flames. Once the fire has been extinguished call the fire department and notify the Site Safety Officer and Environment Health & Safety. Fire extinguishers are a one-time use and must be replaced as soon as possible.

Fire Prevention Measures

Good housekeeping is basic to fire safety and should be a major concern in every type of college facility. The following general preventive measures will help to mitigate potential fire hazards:

| Good Housekeeping Tips for Fire Prevention | General work areas such as offices, labs, and shops must be kept organized, orderly and clean. |
|---|---|
| | Discarded packing material or scrap paper should not be allowed to accumulate. |
| | A sufficient number of waste baskets or trash receptacles made of a non-combustible material should be placed in each work area. |
| | Floors should be swept or vacuumed regularly to prevent the accumulation of potentially combustible materials. |
| | Avoid using flammable solvents or materials with low flash points to clean floors, walls, furniture or equipment. Details on the flammability and flash point of specific materials can be found on the associated SDS sheet. |
| | Store oil or chemical soaked rags only in metal containers suitable for flammable storage. |
| | Flammable materials should be stored in metal cabinets specifically designed for flammable storage. |
| | Equipment installed to prevent accidental ignition of combustible material, e.g. grounding wires or dust collection equipment, must be routinely inspected by the appropriate department supervisor to ensure proper operation. |
| | |

The Custodial Department is responsible for collecting ordinary combustibles, such as paper, wood, plastic, and cloth. If you have any questions concerning the disposal of ordinary trash, please call the Custodial Department or the Maintenance & Operations Office.

SBVC: Custodial ext. 4728 or M&O ext. 8965 CHC: Custodial and M&O ext. 3217

Chemical Handling and Storage

| Leaks, spills, and overflows must | | | | |
|---|--|---|---|--|
| be avoided. Only properly trained and | Storage of flammable and combustible | | | |
| equipped SBCCD employees should clean up potentially hazardous material spills. If you are not trained to perform this type of work, contact your Manager, S&RM ext 6935, orCampus Police at Ext 4491 (SBVC) or 3275 (CHC) to report the spill. | liquids in open containers is not permitted under any conditions. | Chemicals, specifically flammable and/or combustible liquids, should be stored in appropriate UL-rated cabinets. | Incompatible materials in storage areas must be segregated to avoid accidental combustion. Isolate ignitable or combustible materials from oxidizers or sources of ignition. Please refer to Appendix C of this document for a table of capable chemicals. | |

Hazardous Waste Abatement

Hazardous waste collection is performed quarterly by a certified collection and disposal service and coordinated by the Campuses Custodial Supervisor. Refer to the SBCCD Hazardous Waste Management Program for details on types of wastes and their appropriate removal procedures.

Types of Fire Protection Equipment

The basic types of fire protection equipment/systems used at SBCCD include:

- Portable fire extinguishers.
- > Fire sprinkler systems.
- > Chemical extinguishing systems, including carbon dioxide, dry chemical, and halon systems.
- > Fire alarms and smoke detectors.

Maintenance of Fire Protection Equipment

The Maintenance & Operations Department is responsible for the inspection and oversight of all fire protection equipment, and the portable fire extinguisher service program. Fire extinguishers are inspected by staff on a monthly basis and must be certified annually. Please report any problems with any fire protection equipment by calling Maintenance & Operations Director.

Record Keeping

Monthly fire extinguisher inspection reports will be submitted to the Custodial Supervisor, and copies will be forwarded to the Site Safety Officer as well as Safety & Risk Management; inspection records will be maintained for one (1) year.

Program Evaluation

The SBCCD Fire and Life Safety Plan will undergo regular review and necessary revisions periodically by the Environmental Health and Safety Administrator in consultation with the Program Administrator.

References

- Title 8 CCR §3221
- NFPA 58

Appendix A: SBVC Site Specific Information

| College President | • (909) 384-4477 |
|-------------------------------|---|
| VP Administrative Services | • (909) 384-8958 |
| Adminstrative Services | • (909) 384-8965 |
| Safety & Risk Management | • (909) 388-6935 |
| Web Links | https://sbccd.org/ehs |

Appendix B: CHC Site Specific Information

| College President | • (909) 389-3200 |
|-------------------------------|---|
| VP Administrative Services | • (909) 389-3210 |
| Administrative Services | • (909) 389-3211 |
| Safety & Risk Management | • (909) 388-6935 |
| Web Links | https://sbccd.org/ehs |

APPENDIX C: PARTIAL LIST OF INCOMPATIBLE CHEMICALS

(REACTIVE HAZARDS)

TOO OFTEN CHEMICALS ARE STORED ALPHABETICALLY. THIS CAN LEAD TO EXPLOSIVE OR TOXIC ALPHABET SOUP. SUBSTANCES IN THE LEFT COLUMN SHOULD BE STORED AND HANDLED SO THAT THEY CANNOT ACCIDENTALLY CONTACT CORRESPONDING SUBSTANCES IN THE RIGHT COLUMN UNDER UNCONTROLLED CONDITIONS.

SOURCE: Prudent Practices for Handling Hazardous Chemicals in Laboratories, National Research Council, Washington, D.C.,

1995.

INCOMPATIBILITY

| Acetic acid | Chromic acid, nitric acid, hydroxyl compounds, ethylene glycol, perchloricacid, peroxides, permanganates | |
|--|--|--|
| Acetone | Concentrated nitric and sulfuric acid mixtures | |
| Acetylene | Chlorine, bromine, copper, fluorine, silver, mercury | |
| Alkali and alkaline earth metals (lithium, sodium, potassium) | Water, carbon tetrachloride or other chlorinated hydrocarbons, carbon dioxide, halogens, powdered metals (e.g., aluminum or magnesium) | |
| Ammonia(anhydrous) | Mercury (e.g., in manometers), chlorine, calcium hypochlorite, iodine, bromine, hydrofluoric acid (anhydrous) | |
| Ammonium nitrate | Acids, powdered metals, flammable liquids, chlorates, nitrates, sulfur, finely divided organic or 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 | |
| Carbon tetrachloride | Sodium, Chlorates, Ammonium salts, acids, powdered metals, sulfur, finely divided organic or combustible materials | |
| 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 sulfide | |
| Chromic acid and chromium | Acetic acid, naphthalene, camphor, glycerol, alcohol, flammable liquids in general | |
| Copper | Acetylene, hydrogen peroxide | |
| Cumene hydroperoxide | Acids (organic or inorganic) | |
| Cyanides | Acids | |
| Flammable liquids | Ammonium nitrate, chromatic acid, hydrogen peroxide, nitric acid, sodium peroxide, halogens | |
| Fluorine | Isolate from everything | |
| | | |

| Hydrocarbons (e.g.,butane, propane, benzene) | Fluorine, chlorine, bromine, chromic acid, sodium peroxide |
|---|--|
| Hydrocyanic acid | Nitric acid, alkali |
| Hydrofluoric acid (anhydrous) | Ammonia (aqueous or anhydrous) |
| Hydrogen peroxide | Copper, chromium, iron, most metals or their salts, alcohols, acetone, organic materials, aniline, nitromethane, combustible materials |
| Hydrogen sulfide | Fuming nitric acid, oxidizing gases |
| Hypochlorites | Acids, activated carbon |
| lodine | Acetylene, ammonia (aqueous or anhydrous), hydrogen |
| Mercury | Acetylene, fulminic acid, ammonia |
| Nitrates | Sulfuric acid |
| Nitric acid (concentrated) | Acetic acid, aniline, chromic acid, hydrocyanic acid, hydrogen sulfide, flammable liquids, flammable gases, copper, brass, any heavy metals |
| Nitrites | Potassium or sodium cyanide. |
| Nitroparaffins | Inorganic bases, amines |
| Oxalic acid | Silver, mercury |
| Oxygen | Oils, grease, hydrogen, flammable: liquids, solids, or gases |
| Perchloric acid | Acetic anhydride, bismuth and its alloys, alcohol, paper, wood, grease, oils |
| Peroxides, Organic | Acids (organic or mineral), avoid friction, store cold |
| Phosphorus (white) | Air, oxygen, alkalis, reducing agents |
| Phosphorus pentoxide | Water |
| Potassium | Carbon tetrachloride, carbon dioxide, water |
| Potassium chlorate | Sulfuric and other acids |
| Potassium perchlorate | (see Sulfuric and other acids also chlorates) |
| Potassium permanganate | Glycerol, ethylene glycol, benzaldehyde, sulfuric acid |
| Selenides | Reducing agents |
| Silver | Acetylene, oxalic acid, tartaric acid, ammonium compounds, fulminic acid |
| Sodium | Carbon tetrachloride, carbon dioxide, water |
| Sodium Chlorate | Acids, ammonium salts, oxidizable materials, sulfur |
| Sodium nitrite | Ammonium nitrate and other ammonium salts |
| Sodium peroxide | Ethyl or methyl alcohol, glacial acetic acid, acetic anhydride, benzaldehyde, carbon disulfide, glycerin, ethylene glycol, ethyl acetate, methyl acetate, furfural |
| Sulfides | Acids |
| Sulfuric acid | Potassium chlorate, potassium perchlorate, potassium permanganate (similar compounds of light metals, such as sodium, lithium) |
| Tellurides | Reducing agents |
| | |

| Acetyl chloride, alkaline and alkaline earth metals, their hydrides a oxides, barium peroxide, carbides, chromic acid, phosphoro oxychloride, phosphorous pentachloride, phosphoro pentoxide,sulfuric acid, sulfur trioxide | ous |
|--|-----|
|--|-----|

15 Reasons Not to Store Your Chemicals Alphabetically

| INCOMPATABILE CHEMICALS | POSSIBLE REACTIONS |
|--|--|
| Acetic Acid - Acetaldehyde | Small amounts of acetic acid will cause the acetaldehyde to polymerize releasing great quantities of heat. |
| Acetic Anhydride - Acetaldehyde | Reaction can be violently explosive. |
| Aluminum Metal - Ammonium Nitrate | A Potential Explosive |
| Aluminum - Bromine Vapor | Unstable nitrogen tribromide is formed: explosion may result. |
| Ammonium Nitrate - Acetic Acid | Mixture may result in ignition, especially if acetic acid in concentrated. |
| Cupric Sulfide - Cadmium Chlorate | Will explode on contact. |
| Hydrogen Peroxide - Ferrous Sulfide | A vigorous, highly exothermic reaction. |
| Hydrogen Peroxide - Lead II or IV Oxide | A violent, possibly explosive reaction. |
| Lead Sulfide - Hydrogen Peroxide | Vigorous, potentially explosive reaction. |
| Lead Perchlorate - Methyl Alcohol | An explosive mixture when agitated. |
| Mercury II Nitrate - Methanol | May form Hg fulminate- an explosive. |
| Nitric Acid - Phosphorous | Phosphorous aburns spontaneously in presence of nitric acid. |
| Potassium Cyanide - Potassium Peroxide | A potentially explosive mixture if heated. |
| Sodium Nitrate - Sodium Thiosulfate. | A mixture of the dry materials may result in explosion. |