

# Risk Management Services Chemical Hygiene Plan 2016-2017



# Rowan-Salisbury Schools

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## RISK MANAGEMENT SERVICES CHEMICAL HYGIENE PLAN

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Chapter	
I	Purpose

- 1.1 This Chemical Hygiene Plan (CHP) sets forth policies, operating procedures, equipment, personal protective equipment, and work policies capable of protecting staff and students from health hazards presented by hazardous chemicals used in science laboratories in the Rowan-Salisbury Schools (RSS). It is intended to meet the requirements of 29CFR 1910.1450 (Occupational Exposure to Hazardous Chemicals in Laboratories).
- 1.2 Staff and students are to be protected from health hazards associated with the use of hazardous chemical in the laboratory. This will be accomplished through
  1. identification of hazardous chemicals and minimal exposure to students and staff,
  2. development of an outline of the responsibilities of the district, department supervisors, chemical hygiene officers, and employees,
  3. staff and student adherence to laboratory policies and procedures,
  4. assessment of lab facilities equipment needed for lab operation,
  5. established procedures for procurement, distribution, and storage of chemicals,
  6. a standardized process for recording and retaining chemical hazard records,
  7. requirements for posting chemical hazard signs and labels,
  8. development of a written emergency plan to address accidents involving chemicals,
  9. establishment of a Science Safety Training Program,
  10. Established procedures for chemical waste disposal program.

- 2.1 The School District Chemical Hygiene Officer (CHO) shall ensure that building principals, School Chemical Hygiene Officer (SCHO), and department personnel follow the CHP, work with department chairs to develop and implement the plan, conduct lab inspections, stay current in CHP legislation, check chemical inventory for correct labeling (COMPUTER STORAGE MAY BE USED FOR THIS PROCESS), maintain records, provide technical assistance to school employees, determine need for protective equipment, ensure that Safety Data Sheets (SDS) are in place, and review the plan annually.
- 2.2 The Principal of the school is responsible for enforcement of all federal, state, and local health, safety and environmental regulations and policies including the CHP. Every effort shall be made to adhere to the National Science Standards for classroom usage, class size, and safety.
- 2.3 The Principal is responsible for appointing a School Chemical Hygiene Officer (SCHO). The SCHO should be qualified through training and experience to provide technical guidance in the development and implementation of the School CHP. The duties include, but are not limited to, providing local fire department copies of the chemical database and location of the school's SDS sheets, providing safety training for school employees, coordinating requests from and to the RSS CHO, and coordinating acquisition, inventory, use, and disposal, if any, of hazardous chemicals within the building.
- 2.4 School district department chairs are to develop and implement a plan to monitor use of chemicals, maintain records of chemicals and their use, provide specific training, and develop emergency plans for chemical spills and accidents. They must review the plan annually.
- 2.5 Employees shall know and follow the district CHP, know hazards associated with chemicals used, use safety equipment as designed, inform the SCHO of chemical problems, maintain storage areas in proper order, and help refine the CHP.

The Laboratory Standard OSHA Title 29 Code of Federal Regulations, Part 1910.145 requires that Chemical Hygiene Plans include standard operating procedures that detail the criteria that employers will use to reduce employee exposure to hazardous chemicals, including the use of personal protective equipment and hygiene practices.

Students should adhere to all safety procedures outlined in the system and school CHP.

Protective equipment should include personal protective equipment for eyes, face, head, and extremities. The following are recommended, but not limited to:

1. protective clothing
2. respiratory devices
3. protective shields and barriers

The equipment shall be used in the case of hazards of processes or environment, chemical hazards, radiological hazards, or mechanical irritants encountered in a manner capable of causing injury or impairment in the function of any part of the body through absorption, inhalation, or physical contact. This equipment shall be maintained in a sanitary and reliable condition.

RSS shall provide training to each student who is required to use personal protective equipment (PPE). Each student shall be trained to know the following:

1. when PPE is necessary
2. what PPE is necessary
3. how to properly don, doff, adjust, and wear PPE
4. the limitations of the PPE
5. The proper care, maintenance, useful life, and disposal of the PPE.

### **3.1 Eye Protection**

- 3.1.1 Eye and face protection purchased after July 5, 1994, must comply with ANSI Z87.1-1989, “American National Standard Practice for Occupational and Educational Eye and Face Protection” All major components of protective eyewear (except lenses) must be marked “Z87” to indicate SB-231. All major components of protective eyewear (except lenses) must be marked “Z87” to indicate SB-231 compliance with this standard.
- 3.1.2 Eye and face protection devices shall protect against the intended hazard and be marked to identify the manufacturer, be reasonably comfortable, durable, and capable of being disinfected, be easy to clean, and be in good repair.
- 3.1.3 The teacher shall ensure that each affected student shall use appropriate eye and face protection when exposed to eye or face hazards from flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, or potentially injurious light radiation. Eyes must be flushed within one minute to avoid permanent damage.
- 3.1.4 The teacher shall ensure that each affected student shall use detachable side protectors (e.g., clip-on or slide-on side shields) when there is a hazard from flying objects.
- 3.1.5 The teacher shall ensure that each affected student who wears prescription lenses while engaged in operations that involve eye hazards shall wear eye protection that incorporates the prescription in its design. The student may wear an eye protection hat over the prescription lenses without disturbing the proper position of the prescription lenses or the protective lenses.
- 3.1.6 Goggles shall seal around the eyes to prevent entrance of aerosols or splashed liquids. Face shields are worn when additional protection is desired around the eyes and in the neck area.
- 3.1.7 Goggles, for most school science settings, shall be of the “splash” type. They must seal comfortably to the face. Ventilated frames, or specially coated lenses, are generally required to prevent fogging. Scratched faceplates compromise goggle integrity and shall be disposed of.
- 3.1.8 North Carolina OSHA recommends that goggles be disassembled and thoroughly cleansed with soap and warm water. Carefully rinse all traces of soap and replace defective parts with new ones. Swab thoroughly and immerse all parts for 10 minutes in a solution of germicidal deodorant fungicide. Remove parts from solution and suspend in a clean place for air-drying at room temperature or with heated air. Do not rinse after removing parts from the solution because rinsing will remove the germicidal residue that retains its effectiveness after drying. Teachers would need to review this method carefully before using with students.

- 3.1.9 Face-shields should be viewed as supplementary protection to goggles for a larger area of the face. They are not replacements for goggles. Plastic face-shields are available in acetate, polycarbonate, and Lexan. The shield thickness is generally 0.04 or 0.06 inches; shields must be worn when dealing with corrosive liquids.
- 3.1.10 It is required that students wearing contact lenses use non-vented, specifically marked chemical splash goggles.
- 3.1.11 Visitors to laboratories shall be furnished with and required to wear eye safety devices while experiments are in progress.

## **3.2 Hand Protection**

- 3.2.1 When chemical exposure is a concern, the choice of an appropriate type of glove should be based on the chemical compatibility charts supplied by the glove manufacturers. These charts typically provide the performance characteristics in response to particular chemicals with regards to material degradation rating, breakthrough time, and permeation rate. There are seven basic types of gloves, including Neoprene – for sunlight, heat, and organic solvents; Aluminized – for hot or cold materials; Leather – for glass, bites, sharp objects, heat, and cold; Asbestos – now banned; Polyethylene – often disposable for solvents, acids, and detergents; Plastic or latex – for general non-hazardous chemicals; Nitrile for acids and organic solvents.
- 3.2.2 Wear gloves that offer protection for all hazards found in the lab. Test for holes every time gloves are worn.
- 3.2.3 Purell hand sanitizer only – Keep out of reach/sight of students. SDS regulations

## **3.3 Clothing Protection**

- 3.3.1 Open toed shoes and high heel shoes are prohibited in the lab.
- 3.3.2 Neckties should be removed when in the lab area. Loose jewelry is prohibited in the lab area. Long hair must be tied back when working in the lab area. Remove watch straps that are made of absorbent material.
- 3.3.3 Long pants, full length lab coats, or chemical-resistant aprons are required when working with corrosive chemicals. Aprons must protect the body torso down to the knees. Basic types of aprons include: Plastic – generally effective for oils, acids, solvents, and salts; Vinyl – best for dilute solutions of chemicals; Rubber – usually heavier but protect against acids, solvents, alkalis, oils, and caustics.

## **3.4 Ear Protection**

- 3.4.1 Employees and students are required to wear earplugs when the range of noise exceeds 85 decibels.



### **3.5 Eyewash Stations**

- 3.5.1 The locations of eyewash stations must be identified through proper signage.
- 3.5.2 Eyewash stations shall deliver aerated, running water for up to 15 minutes.
- 3.5.3 Eyewash stations should be strategically located and accessible within 10 seconds throughout the lab.
- 3.5.4 Eyewash stations should be checked monthly, and proper operation and proper documentation is required.
- 3.5.5 Eyewash stations should be equipped with hands-free operation.

### **3.6 Drench Showers**

- 3.6.1 A working drench shower must be identified through proper signage.
- 3.6.2 Drench showers shall deliver running water for up to 15 minutes.
- 3.6.3 Drench showers should be strategically located and accessible within 10 seconds throughout the lab.
- 3.6.4 Drench showers should be checked monthly for proper operation and proper documentation required
- 3.6.5 Drench shower pull handle should be between 44" and 55" above the floor and be equipped with hands-free operation.

### **3.7 First Aid Kits**

- 3.7.1 First Aid Kits should be mounted in the classroom in a conspicuous location. The kits should be labeled and be available for immediate access.
- 3.7.2 Teachers should be properly trained to recognize and use the contents of the kit for "appropriate" injuries. Use of the kit might be combined with first aid and Cardiopulmonary Resuscitation (CPR) training from qualified medical personnel.

### **3.8 Fire Blankets**

- 3.8.1 Wool/woven glass fibre fire blankets are prominently labeled and strategically located in the lab (30 steps or 10 seconds).

### **3.9 Fire Extinguishers**

- 3.9.1 An appropriate, functioning, Tri-class ABC fire extinguisher is prominently labeled and strategically located by the exit door in the lab (30 steps or 10 seconds). Chemical storage areas require Tri-class ABC fire extinguishers at the exit doors.

- 3.9.2 Fire extinguishers are checked monthly. The attached red tag should be signed and dated by the site's head custodian.

### **3.10 Fume Hoods**

- 3.10.1 An operational fume hood should be available in all labs when conducting experiments involving hazardous fumes.
- 3.10.2 Fume hoods should be tested annually to ensure proper air of Face velocity of 60-100 FPM (OSHA standard 29 CFR 1910.1450).
- 3.10.3 Fume hoods must not be used for storage.

## Chapter IV

# Chemical Storage Procedures

### 4.1 Chemical Inventory

Chemicals will be stored according to the Fisher or NIOSH systems. It is recommended that high schools use the NIOSH system and the elementary/middle use the Fisher system.

- 4.1.1 An inventory of all chemicals shall be kept and updated on location annually. Paper copies of each inventory (noting especially chemicals with NFPA hazard rating of 3 or 4 in any category) must be provided to local fire departments for them to use in the event of a fire involving the building.
- 4.1.2 Departments must review chemical inventories before purchasing additional chemicals for inventory.
- 4.1.3 Chemicals included in Appendix 6 (from NIOSH) should be removed from the Schools through the use of the Chemical and Waste Disposal Plan.

### 4.2 Physical Storage

- 4.2.1 Stored chemicals must be examined annually for replacement, deterioration and chemical integrity.
- 4.2.2 All incoming chemical shipments must be opened by school staff personnel only.
- 4.2.3 All chemicals must be stored in chemically compatible families in a centralized inventoried area.
- 4.2.4 Chemicals must not be stored under fume hoods.
- 4.2.5 Chemicals must be stored on shelves at or below eye level.
- 4.2.6 Chemical storage areas must be climate controlled year round.
- 4.2.7 Storage cabinets must be OSHA approved for the hazard level of the chemicals stored within.
- 4.2.8 Shelves must be equipped with lips to prevent containers from falling off.
- 4.2.9 Chemicals must not be stored on the floor except in approved shipping containers.
- 4.2.10 Shelving sections must be secured to walls or floors to prevent tipping of entire sections.
- 4.2.11 Chemicals must not be stored beyond their manufacturer's suggested shelf life. Reactions involving the production of excess quantities of dangerous substances must be avoided.
- 4.2.12 Storage areas must be ventilated by a least four changes of air per hour. Isolate the chemical storage exhaust from the general building ventilation system.
- 4.2.13 Food shall not be stored in a laboratory refrigerator.

- 4.2.14 Only authorized personnel are allowed in the chemical storage area.
- 4.2.15 Labs must store the minimum amount of chemicals needed for that school year.
- 4.2.16 Chemicals must be locked in a separate, dedicated storeroom.
- 4.2.17 Storage room door must be locked when not in use.

### **4.3 Signage**

- 4.3.1 Exit signs should be posted above the door inside the storage room.
- 4.3.2 Danger signs should be posted on the door of each entrance to a storage room.
- 4.3.3 If biohazard material is present in the lab area, a biohazard sign should be posted at the entrance of the classroom area.
- 4.3.4 Emergency Notification numbers must be posted and accessible.

### **4.4 Labeling**

- 4.4.1 Label all chemical solutions you make with the identity of the contents, storage date, concentration, expiration date, hazard information, and manufacturer's name and address.
- 4.4.2 MSDS sheets for all chemicals used must be in a conspicuous location in the storage area. Copies of all MSDS forms must also be placed in the master SDS Book located in the main school office.
- 4.4.3 All containers with chemicals should be labeled with the same type of labels. Rowan-Salisbury Schools has recommended that the Fisher Scientific type labels be used on all chemical containers in high schools and the NIOSH labels be used for middle and elementary schools.

### **4.5 Flammable and Corrosive Materials**

- 4.5.1 Corrosives must be stored in approved cabinets and properly labeled.
- 4.5.2 Flammable materials should be stored inside approved flammable storage cabinets.
- 4.5.3 No more than 60 gallons of flammable or 120 gallons of combustible liquids may be stored in a storage cabinet.
- 4.5.4 All flammable and corrosive cabinets must be OSHA approved.

### **4.6 Compressed Gases**

- 4.6.1 Compressed gases should be handled as high-energy sources and potential explosives.
- 4.6.2 The cylinder valve stem should always be promoted.
- 4.6.3 Avoid exposure to heat. Do not store cylinders in direct sunlight.
- 4.6.4 Never lubricate, modify, force or tamper with a cylinder valve.

- 4.6.5 Gas cylinders must be secured in place. They must be protected to prevent valve damage caused by falling.
- 4.6.6 Compressed gas cylinders should be labeled to indicate their contents.
- 4.6.7 Compressed gas cylinders are not stored in the classroom/lab area.

## **4.7 Safety Data Sheets**

- 4.7.1 Rowan-Salisbury School System considers all chemicals as being hazardous.
- 4.7.2 The teacher shall maintain in the classroom copies of the required safety data sheets for each hazardous chemical and shall ensure that they are readily accessible during each period. (Electronic access, microfiche, and other alternatives to maintaining paper copies of the material safety data sheets are permitted as long as no barriers to immediate access in each lab are created by such options.) SDS sheets must be out and visible for the duration of the time that the chemical is being used either by the teacher as a demo or by the student as a lab.
- 4.7.3 Each material safety data sheet shall be in English (the employer may maintain copies in other languages as well) and shall contain, but not be limited to, the following information:
  - 1. material identity in detail
  - 2. manufacturer information
  - 3. hazard identity, emergency information, and other technical information.
- 4.7.4 If the safety data sheet is not provided with a shipment for that chemical, the teacher must obtain one from the chemical manufacturer or importer before the scheduled lab.
- 4.7.5 All inactive SDS sheets must be kept for 30 years in the inactive section of the notebook.
- 4.7.6 Verify that SDS is on file for each chemical in August, January, and June.

## 5.1 Accident Notification

- 5.1.1 All accidents should be reported immediately to school administrators. All accident policies established by RSS must be followed.
- 5.1.2 Students should be moved to a safe location when accidents involving chemical spills occur.
- 5.1.3 The Chemical Hygiene Officer shall be notified of accidents involving student injury or major chemical spills. A follow-up investigation will be done.

## 5.2 Chemical Clean- Up Procedures

- 5.2.1 Clean up the spill immediately and thoroughly. Follow approved spill cleanup procedures. Spills should be cleaned by approved personnel. A bucket of dry sand should be available to aid in providing traction on a slippery floor. A neutralizer for both acid and base spills should be available in the event of a chemical spill.
- 5.2.2 Provide in a readily accessible location appropriate materials and procedures for cleanup of hazardous material and accidents.
- 5.2.3 When cleaning areas where there is a danger of biohazard infection, personnel will wear proper PPE and will clean the area in accordance with the DPS Exposure Control Plan.
- 5.2.4 The school administration and the Chemical Hygiene Officer must be notified immediately in the case of a mercury spill. In the event that the mercury must be contained immediately the teacher must:
  - 4. obtain the proper PPE (gloves, apron, and face-shield)
  - 5. retrieve the mercury with an aspirator or mercury vacuum device
  - 6. cover droplets with sulfur to reduce volatility

## 5.3 Emergency Medical Response

- 5.3.1 When responding to students with chemicals in the eyes, the teacher shall:
  - 1. Call 911 in conjunction with flushing the eye immediately with potable water for 15 minutes and apply eye dressing and gauze wrapping.
  - 2. Not try to neutralize acids or bases.
  - 3. Not try to remove contact lenses that adhere to the eye.
  - 4. Contact administration.
- 5.3.2 When responding to students with chemicals on the body the teacher shall:

5. Call 911 in conjunction with rinsing the affected area with water for 15 minutes. If the affected area is on the head or over a large portion of the body, the drench shower should be used
6. Not try to neutralize acids or bases
7. Keep student warm with fire blanket if needed
8. Contact administration.

## Chapter

## VI

## Waste Disposal

### 6.1 Disposal of Chemical and Hazardous Materials

- 6.1.1 A list of all chemicals to be removed must be submitted to the SCHO who then reports to the Principal and RSS CHO.
- 6.1.2 Unrecognizable chemicals and their quantities must be reported to the SCHO and Principal. It is the responsibility of these parties to report this information to the RSS CHO. Arrangements for timely disposal will follow. These chemicals must be stored separately from the usable chemical inventory.
- 6.1.3 Each obsolete chemical to be disposed of must be labeled with its content and quantity, stored in a locked storage area, and accompanied by a SDS sheet.
- 6.1.4 All records for chemical disposal must be kept on file with the School Chemical Hygiene Officer and/or Principal.
- 6.1.5 Biohazard solid waste should be placed in the proper bio bag and then placed in a labeled Biohazard box with no more than 30 pounds of waste per box.
- 6.1.6 Biohazard liquid waste should be kept in the original container until removed. The liquid should not be mixed with any other substances.
- 6.1.7 Sharps container should be placed in a labeled Biohazard box with no exposed sharps.

## Chapter

## VII

## Classroom Environment

### 7.1 Classroom Environment

- 7.1.1 Students and parents are required to sign a Science Lab Safety contract. Teachers should maintain these contracts and review lab safety regulations with students on a regular basis.
- 7.1.2 Students are never left unattended in the lab.
- 7.1.3 Work stations will accommodate handicapped and disabled students.

- 7.1.4 Science class enrollment standard is not to exceed 24, with 26 as an acceptable maximum. (NFPA-45 and NFPA-101 Life Safety Code)
- 7.1.5 The laboratory and science classroom are never used for anything other than the science instruction for which they were designed. Only science teachers should be instructing in these classrooms.
- 7.1.6 Only authorized qualified teachers shall conduct labs involving hazardous chemicals.
- 7.1.7 Ground Fault Interrupters (GFI/GECI) are placed on all electrical outlets within arm's reach of faucets.
- 7.1.8 The room has a functioning intercom/phone system.
- 7.1.9 Emergency procedures are clearly posted.
- 7.1.10 Persons wash their hands after they handle viable materials, after removing gloves, and before leaving the laboratory.
- 7.1.11 Food is stored outside the work area in cabinets or refrigerators designated and used for this purpose only.
- 7.1.12 Eating and drinking in the lab are prohibited unless the authorized experimentation requires tasting.
- 7.1.13 Sharps should be placed in a rigid plastic container and labeled appropriately. Students are not allowed to clean up broken glass nor transport the container.
- 7.1.14 A biohazard sign shall be posted at the entrance to the laboratory whenever infectious agents are present.
- 7.1.15 It is recommended that laboratory coats, gowns, or uniforms be worn to prevent contamination or soiling of street clothes.
- 7.1.16 Gloves should be worn if the skin on the hands is broken or if a rash is present. Alternatives to powdered latex gloves should be available.

## **7.2 Animals – per NC Public Health Department Guidelines**

All animals brought into the school building must have the approval of the principal. The Animal in the Classroom Contract must be signed by the principal and teacher and must be on file in the CH Book.

The animals allowed in the classrooms must be for specific and appropriate educational purposes.

- 7.2.1 Do not allow dead animals in the room, as the exact cause of death may not be determinable. Many warm blooded animals carry and transmit diseases to humans through ticks, mites, and fleas.
- 7.2.2 Be certain that adequately sized and sanitary cages are provided for all animals. Cages should be kept locked and in a safe, comfortable setting. Since most supply houses are required to quarantine animals and check them for disease before sale, living animals entering the classroom should be healthy and free of transmissible disease or other problems that may endanger human health. It would be wise to obtain study animals only from these dealers. If any are purchased locally, check for general health of all animals before purchase.
- 7.2.3 Animals that are **UNACCEPTABLE** for schools:



1. Wild Animals – Wild animals pose a risk for transmitting rabies as well as other zoonotic diseases (diseases which can be transferred from animals to man) and therefore, should not be brought to schools or handled by students.
- 1a. Hybrid Offspring of Wild Animals – these animals may exhibit unpredictable behaviors, especially in unfamiliar situations that would occur in a classroom situation with children. Therefore, hybrid offspring of wild animals should not be allowed on school grounds.
2. Poisonous Animals – Spiders, venomous insects, and venomous snakes, amphibians, reptiles, and lizards are prohibited from being brought onto school grounds.
3. Stray animals – stray animals should never be brought onto school campuses because the health and vaccination status of these animals is seldom known.
4. Baby Chicks and Ducks – Because of the high risk of salmonellosis and campylobacteriosis associated with baby chicks and ducks, they are not allowed in schools.
- 4a. Exception – Department of Agriculture “Embryo Project”.
5. Aggressive Animals – animals which are bred or trained to demonstrate aggressive behavior toward humans and /or animals or animals who have demonstrated aggression toward humans and/or animals, in the past shall not be permitted on school campuses.
6. Birds – Because of the potential for carrying diseases, and the possibility of biting unfamiliar people, birds are not allowed in schools.
7. Ferrets and Rabbits – Due to their propensity to bite when startled, they should not be allowed on school grounds.
8. Turtles – Turtles are known to carry salmonella, turtles will not be allowed in schools.

- 7.2.4 No experimental procedure shall be attempted on mammals, bird, reptiles, amphibians, or fish that cause the animal unnecessary pain or discomfort.
- 7.2.5 Students shall not perform dissection surgery on animals. Dissection should be directly related to course standards/objectives.
- 7.2.6 Heavy gloves shall be available for handling of animals. Handling should be gentle. Students handling animals must wash their hands immediately and thoroughly.
- 7.2.7 Pockets Pets – Hamsters, guinea pigs, gerbils, etc. can carry salmonella bacteria lymphocytic choriomeningitis (LCVM) is known to exist in pocket pets, therefore must be pre-approved by principal.
- 7.2.8 Handling all animals shall be restricted to the area designated by the school administration.
- 7.2.9 Disposable gloves shall be worn when cleaning aquariums.
- 7.2.10 Food shall be appropriate to the animal’s normal diet and of sufficient quantity and balance to maintain a good standard of nutrition at all times.
- 7.2.11 It is recommended that students not be allowed to feed pets directly from their hands.

- 7.2.12 Animals shall not be allowed in the vicinity of sinks where children wash their hands, or in any area where food is prepared, stored, or served, or in areas used for the cleaning or storage of food utensils or dishes.
- 7.2.13 Students must not be allowed to handle or clean up any form of animal waste (feces, urine, blood, etc.). Animal wastes should be disposed of where students cannot come in contact with them, such as in a plastic bag or container with lid or via the sewage system for feces. Food handlers should not be involved in the cleanup of animal waste and must wash hands immediately and thoroughly after feeding.
- 7.2.14 Teachers should review Student Science Safety Contract for allergies to determine which students may be affected by animals in the classroom.
- 7.2.15 Animals that are allowed to be taken home with students must:
  - 1. Be warm-blooded mammals, suited to be pets such as (hamsters, gerbils rabbits),
  - 2. Have suitable enclosed cages for transportation and living.
  - 3. Have a safe, suitable environment during the animals stay.
  - 4. Have written instructions regarding proper care of the animals to include transporting, handling, and feeding.
  - 5. Have signed parental permission provided by the teacher-instructor.

#### **Service Animals – See Americans with Disabilities Act of 2010**

### **7.3 Plants**

- 7.3.1 Teachers must review Student Science Safety Acknowledgment Contract for allergies to determine which students may be affected by plants in the classroom.
- 7.3.2 Do not use plants that present hazards from:
  - 1. oils (poison ivy, poison oak, poison sumac, poinsettia, and other local plants),
  - 2. ingestion (some fungi – mushrooms, belladonna, herbane, pokeweed, foxglove, jimson weed; other local plants – azalea, castor bean, holly, milkweed, mistletoe, and nightshade),
  - 3. saps (such as oleander, stinging nettle, and other local plants).
- 7.3.3 Never allow plants to be tasted without clear instructions from the teacher. All plants have not been thoroughly researched for toxicity, therefore, students should not place any plant part in the mouth, rub sap or fruit juice into the skin, inhale smoke from a burning plant, or pick wildflowers, or cultivated plants.
- 7.3.4 Never use poisonous or allergy causing plants in the classroom.
- 7.3.5 Students should wash hands after handling plants.

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## 8.1 Science Safety Assessment

Practices & Procedures for Safe, Orderly and Caring Schools	Status	Implemented		Not Applicable	5 Comments
		YES	NO		
<b>SCIENCE EDUCATION:</b> Unless otherwise noted, the 10 items listed below are based on legal requirements. It should be noted that with regard to science accidents and resulting court resolutions, that the Standards of the Science Education Profession, are equated with law.					
1. Each LEA has an established policy and procedure to enable the science education classroom teacher to advise the administration of conditions deemed unsafe and in need of correction	<b>6 C</b>				
2. Science staff receives updates on safety regulations at least once a year and/or when a procedure or chemical is decided to be unsafe for staff or students. i.e., <ul style="list-style-type: none"> <li>MSDS (Material Safety Data Sheets) are accessible to teachers for all chemicals used</li> <li>Prohibitions on use of pathogens or procedures/materials in any lab above Bio-safety Level I as outlined by the Center of Disease Control/Nat'l. Institute of Health protocols.</li> </ul>	<b>C</b>				
3. The science laboratory complies with: <ul style="list-style-type: none"> <li>OSHA Right-to-Know Legislation</li> <li>Blood borne Pathogen Regulations</li> <li>Laboratory Standards – Chemical Hygiene Plan, and</li> <li>Safety Rules and Guidelines established by the profession.</li> </ul>	<b>7 C</b>				
4. Teachers model and students are taught to properly: <ul style="list-style-type: none"> <li>Manipulate scientific equipment</li> <li>Care for and handle live organisms</li> <li>Perform laboratory procedures, and</li> <li>React if an accident occurs.</li> </ul>	<b>8 C</b>				

5. A current inventory of types, quantities, shelf lives and chemicals in use is maintained; and these chemicals are proper labeled and stored, by family, in a secure storeroom with appropriate fire protection equipment and a backup light source.	<b>9 C</b>				
6. Appropriate procedures for disposal and cleanup of bio hazards, chemical, broken glass, and organisms are followed (e.g., aspirator or kit for mercury spills, vermiculite and baking soda for acids, and dilute Clorox solution or 5% Lysol solution for body fluids).	<b>10 C</b>				
7. ANSIZ.87 approved eye protection equipment is provided with proper sterilization and storage, and eyewashes strategically located and capable of operating "hands-free," to provide a minimum of 15 minutes of continuous, aerated water.	<b>11 C</b>				
8. All science room/lab electrical outlets are GFI/GFCI protected	<b>12 C</b>				
9. Safety equipment is periodically checked for functionality and should be removed if not properly working, including but not limited to: <ul style="list-style-type: none"> <li>• An exhaust fan/hood that is independently vented</li> <li>• A functioning drench shower in lab</li> <li>• A master cut-off, switches/valves in each laboratory for gas, with the gas cut off when not in use.</li> </ul>	<b>13 C</b>				
10. Science laboratories are not overcrowded. Classrooms that consist of more than 24 students per teacher and less than 45 square feet per student of floor space (do square feet if classroom/laboratory combination) are considered unsafe.	<b>14 C</b>				

## **8.2 Student Safety Acknowledgement (To be completed each semester)**

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### **Career and Technical Education**

#### **Student Safety Acknowledgment**

1. All accidents should be reported to the teacher immediately, no matter how minor.
2. Only materials and equipment authorized by the teacher should be used.
3. Written and verbal instructions should be followed carefully
4. Chemical goggles should be used when working in the laboratory and using chemicals.
  - a. 3.1.1 It is required that students wearing contact lenses use non-vented, specifically marked chemical splash goggles
5. No food or beverage is permitted in any CTE laboratory
6. Never taste, smell, or touch chemicals unless specifically instructed to do so.
7. Hands should be washed thoroughly with soap at the conclusion of each laboratory period
8. Students should know the location of the emergency, first aid and firefighting equipment and understand emergency procedures
9. Long sleeves should be rolled up above the wrists. Ties, coats and sweaters should be removed. Long hair must be tied back during laboratory activity. Close-toed shoes must be worn.
10. Work areas should be kept clean and tidy.
11. Students should always clean and wipe dry all desks, tables, or laboratory work areas at the conclusion of each laboratory activity.
12. Never handle broken glass. Alert your teacher of any breaks. Broken glass should be placed in the labeled, sharps box.
13. All solid waste should be placed in separate waste container, jars or other designated receptacles.
14. Do not discard any solids in the laboratory sinks.
15. Do not bring any substance in contact with a flame unless specifically instructed to do so.
16. Only laboratory manuals and laboratory notebooks are permitted in the working area. Other books, purses, book bags, and such items should be placed in your desk, locker or storage area.
17. Students are not permitted in laboratory storage or supply rooms or teacher workrooms unless

directly instructed to do so.

18. All solid waste should be placed in separate waste container, jars or other designated receptacles. Do not discard any solids in the laboratory sink.
19. Horseplay, running, pushing, shoving and practical jokes will not be tolerated.
20. Students should never touch or handle laboratory animals without permission from the teacher.
21. Students should conduct themselves in a responsible manner at all times in a laboratory situation.



**Rowan Salisbury Schools**

**Career & Technical Education Safety Agreement**

I, \_\_\_\_\_, have thoroughly explained the safety rules for the CTE laboratory to each student in my classroom.

\_\_\_\_ (Teacher's Signature)

\_\_\_\_\_  
(Date)

I, \_\_\_\_\_, have had the safety rules for the CTE laboratory explained to me and agree to follow these safety regulations while in a CTE class. I further agree to follow all other written and verbal instructions given in class by the teacher.

\_\_\_\_ (Student's Signature)

\_\_\_\_\_  
(Date)

I, \_\_\_\_\_, as parent and/or guardian of the above named student, have read and discussed the rules with my student. I support safe laboratory practices and will insist on complete compliance with the rules.

\_\_\_\_ (Parent's Signature)

\_\_\_\_\_  
(Date)

## **Classroom Checklist (To be completed in August, January, and June)**

TEACHERS SHOULD PERFORM PERIODIC ASSESSMENTS OF THE CLASSROOM TO ENSURE THAT ALL POSSIBLE SAFETY PRECAUTIONS ARE BEING TAKEN

Teachers should design an instructional format that allows students sufficient time to conduct a science activity, to cleanup, and properly store materials and equipment after use \_\_\_\_\_

Teachers should be a positive role model for students by always practicing appropriate safe behaviors and using necessary personal protective equipment (safety goggles, aprons, gloves, etc.) \_\_\_\_\_

The room is well lit \_\_\_\_\_

The room has no blind spots which cannot be supervised by the teacher \_\_\_\_\_

A functioning smoke/heat detector is in the room \_\_\_\_\_

There is a functioning intercom system to secure aid in an emergency \_\_\_\_\_

The room is acoustically comfortable and devoid of echo effects \_\_\_\_\_

If floors are tile or hardwood, they are covered with a nonskid wax to prevent falls \_\_\_\_\_

There are sufficient electrical outlets to prevent the necessity for extension cords \_\_\_\_\_

Electrical outlets near water faucets have Ground Fault Interrupters (GFI) on them to protect students from electrocution \_\_\_\_\_

Only three-pronged, grounded electrical outlets are available in the room \_\_\_\_\_

Electrical outlets are capped when not in use \_\_\_\_\_

The classroom doors open outward to facilitate emergency exit \_\_\_\_\_

The room is not overcrowded (20-45 sq. ft. or 2.0-4.6 sq. meters of floor space/student) \_\_\_\_\_

The furniture allows flexibility in arrangements for small group, large group, and individual activities \_\_\_\_\_

Aisles are sufficiently wide to accommodate handicapped student needs (5 ft.) \_\_\_\_\_

The physical organization of the room is sufficiently flexible to allow space to set up, conduct, and store student projects \_\_\_\_\_

There are no more than 24 students assigned to a teacher when conducting science activities \_\_\_\_\_

There are sufficient numbers of large tables on which students can conduct science activities. \_\_\_\_\_

There are at least two faucets and two sinks in the room for use in conducting science activities \_\_\_\_\_

The room is maintained in a neat, orderly condition \_\_\_\_\_

Safe, secure space is provided for the display of aquaria, terraria, or animal cages \_\_\_\_\_

Large and/or heavy items are stored on lower shelves \_\_\_\_\_

There are adequate display cases for materials and student activities \_\_\_\_\_

Student containers are identified with accurate, chemically resistant, temporary labels \_\_\_\_\_

Student containers are small enough to reduce the potential for serious injury and to prevent the need for disposal of large quantities of waste \_\_\_\_\_

Used chemicals should not be returned to original containers \_\_\_\_\_

A system should be developed for the appropriate transport of chemicals and equipment items within and between classrooms and storage areas, that ensures safety. A rolling cart with lips on each shelf is highly recommended \_\_\_\_\_

Hazardous materials should only be transported through the halls by the teacher \_\_\_\_\_

## **STORAGE**

There is adequate classroom storage space to prevent overcrowding \_\_\_\_\_

All storage shelves are below adult eye level and have raised front lips to prevent objects from rolling off them onto the floor \_\_\_\_\_

There is a lockable storage area, or box, for securing valuable, or potentially dangerous, materials \_\_\_\_\_

Volatile chemicals are stored away from sunlight, heat and electrical sources. \_\_\_\_\_

Synergistically reactive chemicals should be stored away from each other \_\_\_\_\_

Chemicals with NFPA codes of 3 or greater, in any category, or that are deemed hazardous from the MSDS, should be kept out of the reach of students in appropriate lockable containers \_\_\_\_\_

Caustic, or dangerous, chemicals should be stored in containers appropriate for their protection \_\_\_\_\_

Caustic chemicals are kept in appropriate containers which are easily handled \_\_\_\_\_

Appropriate mild acids or bases are provided to students in small, easily handled containers \_\_\_\_\_

Storage areas and individual items (chemicals and equipment) should be appropriately labeled with permanent ink or electric markers \_\_\_\_\_

A method for inventorying and checking-in and checking-out of chemicals and equipment should be put into practice \_\_\_\_\_

Permanent chemicals should be completely identified, with the manufacturers' label (see the Chemical Hazard file for details) \_\_\_\_\_

The date of chemical receipt should be noted on the container in order to prevent exceeding the useful shelf life \_\_\_\_\_

Substances which have lost their identity labels, or for which there is confusion in their labeling, should be appropriately discarded \_\_\_\_\_

Wood storage cabinets are preferable to metal in order to prevent corroding and hot spots during fires \_\_\_\_\_

Shelves are deep enough to accommodate the objects placed on them and to prevent dislodging \_\_\_\_\_

**\*Some facilities were built before compliance standards were put into place. In those circumstances, the Building Administrator or SCHO will set policy.**

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## **STOREROOM CHECKLIST**

The storeroom is a minimum of 240 sq. ft. in size  
(minimum of 10' X 24' based on 10 sq. ft. /student) \_\_\_\_\_

Under ideal conditions, the storeroom would be located outside the  
walls of the school building \_\_\_\_\_

Storage areas are free of blind alleys \_\_\_\_\_

No open flames, or smoking, are allowed in storeroom \_\_\_\_\_

An alarm system is available for emergencies \_\_\_\_\_

### **Doors**

Doors have reinforced glass-viewing plates or peep holes \_\_\_\_\_

Fire doors separate the room from the school \_\_\_\_\_

Doors open outward to facilitate emergency exit \_\_\_\_\_

All doors are self-closing and lockable \_\_\_\_\_

Ideally, there are two exits to the room \_\_\_\_\_

The general light level is 50-100 foot-candles \_\_\_\_\_

The room has an independent, self-powered, emergency lighting system to  
facilitate safe exit during a power failure \_\_\_\_\_

The room has a regular turnover of air (in warm climates an active ventilation  
system could be used, in cold climates passive ventilation might be used) and  
air leaves the building. \_\_\_\_\_

There are no chemical smells in the air when entering the room, indicating  
poor ventilation and/or improper or damaged storage chemical containers \_\_\_\_\_

Floors are made of asphalt tile with a nonskid wax \_\_\_\_\_

There is a depressed floor drain, which has a collar to prevent undesirable  
substances from entering the plumbing system \_\_\_\_\_

All electrical outlets are properly grounded \_\_\_\_\_

## **Shelves**

All shelves are wood or corrosion resistant metal and are firmly attached to the floors and walls \_\_\_\_\_

All shelves are 12" deep, with a front raised lip to prevent round glass containers from rolling off and onto the floor \_\_\_\_\_

There is a functioning smoke/flame detector in the room with a remote alarm speaker outside the room \_\_\_\_\_

There is a fire alarm inside the room near the outside door \_\_\_\_\_

The master shutoff switches/valves for electricity gas, and water are not located within this room \_\_\_\_\_

All electrical outlets are properly grounded and/or have GFI's on them to prevent electrical shock \_\_\_\_\_

Electrical outlets are located away from where water and/or chemicals could be spilled and cause electrical problems \_\_\_\_\_

All flammable liquids are stored in original manufacturers containers designed for that purpose, or in NFPA approved safety cans away from flame sources \_\_\_\_\_

The room has a functioning intercom system to secure help during an emergency \_\_\_\_\_

There is a sturdy stepladder available to retrieve items stored on upper shelves \_\_\_\_\_

All equipment is stored in its proper place \_\_\_\_\_

All aisles are at least 3 ft. wide, clear, and without blind alleys \_\_\_\_\_

Room is kept dry and cool (50°F-80°F) \_\_\_\_\_

The storeroom is always maintained in a neat, orderly condition to prevent human falls and to expedite emergency exits \_\_\_\_\_

The storeroom is clearly marked and secured at all times when not in use \_\_\_\_\_

## **Chemicals**

Material Safety Data Sheets (MSDS), are used to help prevent chemical dangers \_\_\_\_\_

Chemicals are only stored by chemically compatibility to prevent incompatibilities \_\_\_\_\_

Special storage is available for incompatibles such as oxidizers, metals, ammonium nitrate, Nitric acid, flammable and nonflammable compressed gasses \_\_\_\_\_

- All chemicals are dated upon receipt \_\_\_\_\_
- A permanent chemical inventory is maintained and updated at least annually \_\_\_\_\_
- All chemical storage cabinets are properly labeled \_\_\_\_\_
- No chemicals are stored under sinks, where they might get wet \_\_\_\_\_
- Open flames are not allowed in the room at any time \_\_\_\_\_
- Large quantities of flammable liquids are stored in safety cans and/or vented, grounded flammable storage cabinets \_\_\_\_\_
- Physics and chemistry storerooms are not common, to prevent corrosive vapors from damaging sensitive equipment (store physics equipment with biology equipment if necessary) \_\_\_\_\_
- Chemicals are stored away from heavy traffic \_\_\_\_\_
- Chemical storage areas are properly ventilated \_\_\_\_\_
- Chemicals are pumped, rather than poured from large containers \_\_\_\_\_
- Chemical mixing is not done in storeroom \_\_\_\_\_
- Chemicals are stored below eye level \_\_\_\_\_
- Damaged chemical containers are removed \_\_\_\_\_
- Chemicals are not "stored" in eyedropper bottles \_\_\_\_\_
- Large containers are stored no higher than 2 feet from the floor \_\_\_\_\_
- Oxygen, acetylene, propane, butane, and other flammable gases are stored away from one another \_\_\_\_\_
- Spill cleanup materials are readily available and appropriate for the chemicals being used \_\_\_\_\_
- Chemicals are not exposed to direct sunlight \_\_\_\_\_
- Acids are separated from caustics & active metals like sodium, potassium, and magnesium as well as from those that can generate toxic gases (iron sulfide, sodium cyanide) \_\_\_\_\_
- Emergency telephone numbers are posted by telephones and near the storage area \_\_\_\_\_
- OSHA/NFPA approved safety cabinets are used for storing flammable liquids \_\_\_\_\_
- Only approved refrigerators are used for storing flammable chemicals \_\_\_\_\_

Water reactive chemicals are kept in cool, dry locations with appropriate \_\_\_\_\_  
Firefighting equipment immediately accessible

Poisons are kept under lock and key and poison control emergency telephone \_\_\_\_\_  
numbers are nearby

Very hazardous chemicals not maintained as part of the school science inventory \_\_\_\_\_

Chemicals are transported using appropriate carriers

Hazardous chemicals are only distributed when requests include:

- Name of requesting person
- Chemical name
- Chemical Abstract #
- Name of chemical supplier
- Name of course and use of chemical
- Justification of appropriate safety equipment
- Documentation that person knows how to use the chemical
- Length of time chemical will be used
- Date chemical is desired

Peroxide forming chemicals are kept in airtight containers in cool, dry locations and \_\_\_\_\_  
disposed of before shelf life is exceeded

### **Compressed Gas Cylinders**

Compressed gas cylinders are never exposed to temperatures greater than 50°C \_\_\_\_\_

Compressed gas cylinders are restrained by chains straps or a parallel \_\_\_\_\_

Oil, grease are kept away from oxygen cylinders \_\_\_\_\_

**\* Some facilities were built before compliance standards were put in place. In those circumstances, the Building Administrator and the SCHO will set policy.**



8.4 Storeroom Equipment Checklist

STOREROOM EQUIPMENT - CHECKLIST

15 Fire extinguisher

- Is functional \_\_\_\_\_
- Is appropriate for the chemicals stored \_\_\_\_\_
- Is clearly labeled and accessible \_\_\_\_\_

Personal Protective Equipment (PPE)

- Large and/or heavy items are stored on bottom shelves \_\_\_\_\_
- Fire blanket is clearly labeled and accessible \_\_\_\_\_
- Hand operated eye/face drench hose is available \_\_\_\_\_
- Approved safety goggles, apron, gloves, and face shield are available as necessary \_\_\_\_\_

15.2 Other Considerations

- No chemicals are kept beyond their manufacturer's suggested shelf life \_\_\_\_\_
- All chemicals are stored according to chemical family in order to prevent harmful synergistic reactions \_\_\_\_\_
- All chemical containers have NFPA hazard, or other information, as required by Right to Know legislation, affixed to them \_\_\_\_\_
- Oxidizing agents are stored away from reducing agents \_\_\_\_\_
- Chemicals are kept in properly labeled containers in good condition only \_\_\_\_\_

- A bucket of sand/soda ash (10:1 ratio), diatomaceous earth, or chemical absorbent pillow is kept in the room to control chemical spills \_\_\_\_\_
- A complete and current chemical inventory is available and posted in a conspicuous place \_\_\_\_\_
- A copy of the chemical inventory and its location is supplied to the local fire department each year to aid them in the event of a storeroom fire (refer to state Right to know legislation for details) \_\_\_\_\_
- Accurate records of radioactive materials are maintained \_\_\_\_\_
- All dangerous, radioactive, and/or valuable chemicals are properly labeled and stored in locked cabinets \_\_\_\_\_
- A functioning Geiger counter is available to monitor all radioactive specimens \_\_\_\_\_
- All materials are properly disposed of according to federal and state regulations \_\_\_\_\_
- Dangerous materials identified on the inventory and the cabinets and labeled according to state 'Right to Know' legislation \_\_\_\_\_
- Caustic liquids are stored below waist level \_\_\_\_\_
- Potentially dangerous chemicals are maintained only in small quantities (no more than a 1 year quantity) \_\_\_\_\_
- Unlabeled containers are properly disposed of according to federal and state regulations \_\_\_\_\_
- Shelf supports are checked regularly for integrity \_\_\_\_\_
- A cart is provided for transport of materials from storeroom to laboratory \_\_\_\_\_
- A stable, safety stepstool is available for reaching items on upper shelves \_\_\_\_\_
- MSDS's are obtained from manufacturers and are used to assess the hazards of all chemicals \_\_\_\_\_
- Shelf aisles are at least 3 ft. wide with dead ends \_\_\_\_\_
- Exceptionally hazardous chemicals are not a part of the chemical inventory (refer to MSDS sheets, and references at the end of this disk) \_\_\_\_\_
- Gas cylinders are capped, firmly secured, and stored away from heat sources \_\_\_\_\_
- Chemicals are not stored above eye level \_\_\_\_\_
- Shelves are not overcrowded (less than 2 items deep) \_\_\_\_\_
- Chemicals are always returned to storeroom at the end of the day \_\_\_\_\_

Flammable liquids are stored in ventilated cabinets \_\_\_\_\_

All chemicals are clearly and completely labeled including:  
date added to inventory, name of supplier, contents, hazards \_\_\_\_\_

Chemicals are checked regularly for decomposition \_\_\_\_\_

Empty gas cylinders are labeled "empty" \_\_\_\_\_

When not in use, gas cylinders are securely capped and restrained  
to protect valves from damage \_\_\_\_\_

## 8.6 Laboratory General Checklist (To be completed in August, January, and June)

### LABORATORY GENERAL

Item	Date Satisfed
All safety corrections are initiated through the use of the Request for Correction Form	_____
The Accident/Incident Report Form is completed following all accidents	_____
The Request for Correction Form is used to apprise administrators of safety problems	_____
Records of regular maintenance are produced and filed for future reference	_____
Teachers and students know the safety rules and procedures to follow for lab operations	_____

Teachers and students are alert for unsafe conditions and help initiate corrections of the situation immediately	_____
Before leaving laboratory areas, teachers and students wash with soap and water	_____
Lab work areas are kept clear of clutter	_____
Access to all emergency equipment (eyewashes, showers, exits) is kept clear	_____
The lab area is always cleaned before leaving	_____
Each student experiment and teacher demonstration is reviewed for hazards prior to student participation	_____
The teacher promotes a positive student attitude toward safety	_____
The teacher provides a good safety role model	_____
Only an appropriately certified teacher supervises activities in the lab	_____
Long hair and loose student clothing are restricted to prevent injury	_____
The lab is used for only scientific purposes	_____
Warning signs are posted for unusual hazards such as: ultraviolet, irradiation, pressurized reaction, biological, chemical hazards	_____

Storage rooms (areas) are clearly marked and secured	_____
Food and beverages are not allowed in the lab	_____
Mouth pipetting of liquids is never allowed	_____

The teacher explains and has students and parent/ guardian, sign the Student Safety Contract	_____
The Accident/Incident Report Form is available and used following all accidents	_____
Accident/Incident Reports are used as learning tools	_____
Administrators are kept informed of activities and concomitant safety efforts	_____
Animals, if used, are treated humanely	_____
Proper lab housekeeping and cleanup techniques are taught and enforced	_____
The teacher conducts a regular walk through of activities, identifying safety equipment and procedures to students	_____
Carefully constructed, foreseeable, lab emergencies simulated with students periodically	_____

Volatile chemicals are not stored in the room	_____
Safety practices are enforced for all visitors	_____
No wild, or dead, animals are brought into labs. Study animals are obtained only from licensed supply houses or pet dealers.	_____
Clean, adequate, comfortable, cages are available for all animals	_____
Lab equipment is used only for its designated purpose	_____
Heavy gloves are available for handling animals	_____
Students with open skin wounds should either wear gloves or be excused from the activity.	_____
Non-edible plant parts are never placed in mouths	_____
Plants with poisonous oils (poison ivy, poison oak, poison sumac, other local plants) are never used	_____
Plants with poisonous saps (oleander, poinsettia other local plants) are never used	_____
Plants, poisonous if eaten (some fungi-mushrooms, foxglove, jimsonweed, pokeweed, rhubarb leaves, other local plants), are never used	_____
Supervisors and select teachers are trained in CPR	_____

Student in labs are never left unattended	_____
Labs are always locked when not in use	_____
The teacher has read the appropriate MSDS (Material Safety Data Sheet) for health hazards associated with any chemicals being used in activities	_____
Procedures involving corrosive chemicals that can generate gases, fumes, vapors, dusts are used under a hood only	_____
To minimize hazards from chemical spills, containers are used in pans or trays of unbreakable, chemical resistance	_____
Teachers and students are prepared to deal with chemical spills	_____
All chemicals labels are checked carefully before any dispensing takes place	_____
Chemicals are never dispensed to faculty or students who do not know their hazards and how to use them properly	_____
Used reagents are not returned to original containers	_____
Chemicals are all returned to their proper storage when the work day is finished	_____
Aisles and passageways to exits are always kept clear	_____
Students know primary and secondary room exits	_____

Fire exits are clearly marked	<div></div> <div></div>
Spills are always cleaned up using appropriate reagents and protective apparel	<div></div> <div></div>
All services (gas, electricity, water) are turned off before the teacher leaves the lab	<div></div> <div></div>
Labs are cleaned regularly (at least quarterly)	<div></div> <div></div>
A reference library of safety materials is maintained and accessible to all employees.	<div></div> <div></div>

**Date**

**Certifier**



8.5     RSS Chemical and Hazardous Materials Disposal Form

9

Chemical Disposal Form

Contact Person \_\_\_\_\_  
Site/Location \_\_\_\_\_ Date \_\_\_\_\_

<u>Chemicals to be Removed</u>	<u>Reason for disposal*</u>	<u>Quantity</u>	<u>MSDS**</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

\*Reasons: out of date, not on suggested chemical list, etc.  
\*\*MSDS must be provided for each identified chemical.

<u>Unknown Chemicals</u>	<u>Concerns/issues/descriptions</u>	<u>Quantity</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Signature of School Chemical Hygiene Officer \_\_\_\_\_ Date \_\_\_\_\_

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Signature of Principal

Date

### Chemical Disposal Completed

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Signature of Rowan-Salisbury Schools Chemical Hygiene Officer

Date

Contracted Vendor:

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Address

\_\_\_\_\_  
Phone Number

## **In the event of an accident**

Teachers should be familiar with their school's policies for reporting accidents. This should be discussed with students and a copy sent home to parents. If the school has not established such a policy, the following guidelines, and forms, are provided as recommendations.

### **For Accidents Which You Can Manage:**

1. Assess the hazard that caused the injury and the degree of student injury
2. Give appropriate first aid, but give no oral medications
3. If a student is bleeding, take necessary precautions for dealing with bodily fluids
4. If appropriate, correct the hazard that caused the accident
5. It is recommended that the Accident/Incident Reports (below) be completed by persons having knowledge of the circumstances, while the specifics are still fresh in their minds. These can be valuable in preventing a similar situation and in protecting teachers from unfounded liability.

### **For Accidents Which Are More than You Can Manage**

1. Assess the hazard that caused the injury and the degree of student injury
2. Make the student comfortable
3. Notify the school principal
4. Notify the school nurse or other designated first-responder
5. It is recommended that the Accident/Incident Reports (below) be completed by persons having knowledge of the circumstances, while the specifics are still fresh in their minds. These can be valuable in preventing a similar situation and in protecting teachers from unfounded liability.

### **For Serious Accidents**

1. Assess the hazard that caused the injury and the degree of student injury
2. Obtain medical help immediately by calling a pre-determined emergency number or 911
3. Notify the school principal
4. Contact the parent, or guardian, as soon as possible and urge that they contact their family physician
5. If unable to reach parent or guardian, contact the alternate person designated and/or family physician as directed
6. It is recommended that the Accident/Incident Reports (below) be completed by persons having knowledge of the circumstances, while the specifics are still fresh in their minds. These can be valuable in preventing a similar situation and in protecting teachers from unfounded liability.

# TEACHER ACCIDENT/INCIDENT REPORT

Teacher completing the report: \_\_\_\_\_

Date of accident/incident: \_\_\_\_\_

Time of the accident/incident: \_\_\_\_\_

Location of the accident/incident: \_\_\_\_\_

Staff/student(s) involved in the accident/incident:

Staff (report attached)

Student (report attached)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Teacher description of the accident/incident:

Immediate action taken to deal with the emergency:

Corrective action taken to avoid a repeat of the accident/incident in the future:

\_\_\_\_\_  
(Date Report Completed)

\_\_\_\_\_  
(Signature of Teacher Completing the Report)

# STAFF WITNESS ACCIDENT/INCIDENT REPORT

Staff witness completing the report: \_\_\_\_\_

Date of accident/incident: \_\_\_\_\_

Time of the accident/incident: \_\_\_\_\_

Location of the accident/incident:

Description of the accident/incident by witness:

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\_\_\_\_\_  
(Date Report Completed)

\_\_\_\_\_  
(Signature of Staff Witness Completing the Report)

# STUDENT WITNESS ACCIDENT/INCIDENT REPORT

Student witness completing the report: \_\_\_\_\_

Date of accident/incident: \_\_\_\_\_

Time of the accident/incident: \_\_\_\_\_

Location of the accident/incident:

Description of the accident/incident by witness:

[illegible]

(Date Report Completed)

(Signature of Student Completing the report)

## Animal Out of School Custody Form

Today's Date: \_\_\_\_\_

School: \_\_\_\_\_

Teacher: \_\_\_\_\_

Grade: \_\_\_\_\_

Student: \_\_\_\_\_

Home Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Type of Animal to be taken home: \_\_\_\_\_

Dates to be taken and returned:

Taken: \_\_\_\_\_

Returned: \_\_\_\_\_

### 16.2 Requirements of the School

☐

A suitable cage is provided.

☐

Written instructions for animal transporting, handling and feeding have been provided.

☐

Parental understanding that the animal must be kept in a safe, suitable environment.

Parent Signature: \_\_\_\_\_

## Rowan-Salisbury Schools “Animals in the Classroom” Contract

Please fill out a separate form for each animal.

Teacher: \_\_\_\_\_

School: \_\_\_\_\_ Grade: \_\_\_\_\_

Animal: \_\_\_\_\_

1. The animal is allowed for a specific and appropriate educational purpose.
2. The animal is in good physical condition and has been vaccinated against transmittable diseases (where appropriate).
3. If the animal has fur, student safety contracts have been checked to ensure that students who would be affected by allergies are not allowed in close proximity to the animal.
4. The animal will remain in an appropriate cage or container to ensure the protection of children and the animal. Even very tame animals may react aggressively in strange situations; therefore, student contact with animals should always be supervised and regulated.
5. All cages must be cleaned and sanitized on an as needed basis (at a minimum of one time per week). Adults cleaning the cages must wear gloves, masks and goggles.
6. The animal will be safe from harm while in the classroom. The teacher is familiar with appropriate care, feeding, and handling of the animal and of any potential dangers caused by the animal. During periods of inclement weather, the teacher has a plan for the care and survival of the animal.
7. The students will be safe from harm by the animal's presence. Many different diseases and afflictions may be transmitted by animal hair, dander, bites, and fecal material. It shall be the responsibility of the teacher to become familiar with each animal as it relates to the well-being of individual students in that particular classroom.
8. All animals must meet the guidelines as specified in the RSS Chemical Hygiene Plan, Section 7-2.

The principal shall be advised of any animals to be housed in the classroom. At the principal's discretion, permission to keep the animal may be denied based on these considerations: 1) the purpose of the animal's presence, 2) the ability of the teacher to control the animal, 3) the past practice of the classroom.

☐ Approved    ☐ Not Approved

\_\_\_\_\_  
Principal's Signature

\_\_\_\_\_  
Date

Teacher Signature: \_\_\_\_\_

\_\_\_\_\_  
Date



## • EMERGENCY CONTACT INFORMATION

Fire & Police Departments

911

Sharon Gardner, Risk Manager/Safety Officer

Office: 704.630.6086

Cell: 704.310.7985

Phil Dobbins, Custodial Manager

Office: 704.639.7098

Cell: 704.213.9338

• Anne Ellis, Horizons

Office: 704.639.3004

Cell: 704.213.2088

Safety Kleen – For chemical cleanup  
Call only after authorization

888.375.5336

## North Carolina RIGHT-TO-KNOW LEGISLATION

The Occupational Safety and Health Association (OSHA) Hazard Communication Standard or "RIGHT TO KNOW" (RTK) Legislation, pertaining to hazardous chemicals in the workplace was originally drafted as Final Rule in 1983 and became effective November 25, 1985. The standard can be found in Title 29 of the Code of Federal Regulations in Subpart Z of Part 1910 (*Federal Register*, November 25, 1989 and August 24, 1987). Many OSHA regulations have compliances based on national consensus standards from such organizations as the American National Standards Institute (ANSI), National Fire Protection Association (NFPA), and the Department of Transportation (DOT).

All privately financed educational institutions are covered by the federal standard as well as the Right-to-Know laws in force in their respective states. Publicly funded schools must comply with their respective state government statutes. All RTK legislation is designed to help employees recognize and eliminate the dangers associated with hazardous materials in their workplace.

The legislation requires that a *written program* be developed and that all affected employees know its contents. The details of such legislation will vary from state to state. Check with your Department of Education, federal (Chemical Emergency Procedures and Right to Know questions 1-800-424-9346) or state OSHA office, or Department of Labor. The plan need not be lengthy, however, it must generally include these components:

1. Written Hazard Assessment Procedures, including;  
designations of responsible individual(s) or agency, consideration of scientific evidence for health hazards, evaluation of physical hazards, a comprehensive list and consideration of regulated chemicals, and assessment of chemicals prepared on site. Physical Hazards encompass flammable liquids or solids, combustible liquids, compressed gases, explosives, organic peroxide, oxidizers, pyrophoric materials, unstable materials, and water reactive materials. Chemical Hazards include carcinogens, toxic agents, reproductive toxins, irritants, corrosives, sensitizers, and organic specific agents.
2. Material Safety Data Sheets (MSDS's) for all chemicals, including; designated person responsible for maintaining the sheets, procedures for apprising and allowing employees access to them, procedures to follow when MSDS's are not received, procedures for updating the sheets, and descriptions of alternatives to actual sheets in the work area
3. Labels and Warnings, including;  
designated person responsible for ensuring proper labeling of chemicals, description of labeling system, and procedure for updating the labeling information. Labels must generally include: identity of hazardous chemical, appropriate hazard warning, and name and address of manufacturer.
4. Employee Training, including;  
designations of person responsible for conducting training, format of the program, documentation of training, and procedures for training new employees. The ultimate purpose is to assure a safe workplace.

**According to North Carolina OSHA, Right-to-Know legislation these provisions shall not apply in or on the following (Exemptions General Statutes 95-216):**

- (1) Hazardous substances while being transported in interstate commerce into or through the state;
- (2) Products intended for personal consumption by employees in the facilities;
- (3) Retail food sale establishments and all other retail trade establishments in Standard Industrial Classification Codes 53-59, exclusive of processing and repair areas, except that the employer must comply with the provisions of G.S. 95-194(1)(I);
- (4) Any food, food additive, color additive, drug or cosmetic as such terms are defined in the Federal Food, Drug and Cosmetic Act (21 U.S.C. 301 et seq.);
- (5) A laboratory under the direct supervision or guidance of a technically qualified individual provided that:
  - (a) Labels on containers of incoming chemicals shall not be removed or defaced;

- (b) MSDS's received by the laboratory shall be maintained and made accessible to employees and students;
- (c) The laboratory is not used primarily to produce hazardous chemicals in bulk for commercial purposes; and
- (d) The laboratory operator complies with the provisions of G.S. 95-194(a) (i);
- (6) Any farming operation which employs 10 or fewer full-time employees, except that if any hazardous chemical in an amount in excess of 55 gallons or 500 pounds, whichever is greater, is normally stored at the farming operation, the employer must comply with the provisions of G.S. 95-194(1)(I); and
- (7) Any distilled spirits, tobacco, and untreated wood products; and
- (8) Medicines used directly inpatient care in health care facilities and health care facility laboratories.

#### **North Carolina General Statute 94-194. Emergency Information**

(a) An employer who normally stores at a facility any hazardous chemical in an amount of at least 55 gallons or 500 pounds, whichever is greater, shall provide the Fire Chief of the Fire Department having jurisdiction over the facility, in writing, (i) the name(s) and telephone number(s) of knowledgeable representative(s) of the employer who can be contacted for further information or in case of an emergency, and (ii) a copy of the Hazardous substances list.

**According to the North Carolina Hazard Communication pamphlet of March, 1996,** The Hazard Communication Standard is also known as the "worker right to know." The goal of the standard is to reduce injuries and illnesses that result from improper use, storage, etc., of chemicals in the workplace. The first step in understanding the standard is to know which chemicals it applies to. The OSHA definition of hazardous chemical is so broad that practically every chemical substance and mixture is included: "hazardous chemical means any chemical which is a physical hazard of health hazard."

Lists of physical and health hazards follow:

##### **Physical Hazards**

- Combustible liquids
- Compressed gases
- Explosives
- Flammables
- Organic peroxides
- Pyrophorics
- Unstable or water reactives

##### **Health Hazards**

- Carcinogens (cause cancer)
- Toxic or highly toxic agents
- Reproductive toxins
- Irritants
- Corrosives
- Sensitizers
- Hepatotoxins (damage liver)
- Nephrotoxins (damage kidneys)
- Neurotoxins (damage nerves)
- Hematopoietic agents (damage blood)
- Agents which damage... lungs, skin, eyes, mucous membranes

#### **References**

\_\_\_\_\_, Hazardous Chemicals Right to Know Act, General Statutes 95-173-95-218, North Carolina Dept. of Labor, 319 Chapanoke Rd, Suite 105, Raleigh, NC 27603-3432., 1995.

\_\_\_\_\_, *Hazard Communication Standard*, North Carolina Dept. of Labor, 319 Chapanoke Rd, Suite 105, Raleigh, NC 27603-3432., 1995.

## Substances Of This Hazardous Nature Shall Not Be Purchased, Located Or Stored In Any Rowan-Salisbury Chemical Storage Room Or Cabinet.

Chemicals used in the laboratory may be hazardous because of the following:

Safety risks (i.e., highly flammable or explosive material)

Acute and chronic health hazards

Environmental harm

Impairment of indoor air quality

Assessment of the chemicals in this list indicates that their hazardous nature is greater than their potential usefulness in many school programs. Evaluation included physical hazards (i.e., flammability, explosive propensity, reactivity, corrosivity) and health hazards (i.e., toxicity, carcinogenicity).

This following list of chemicals was generated from the *Manual of Safety and Health Hazards in the School Science Laboratory* published by U.S. Department of Health and Human Services, National Institute for Occupational Safety and Health [1984].

Carcinogenic substances were identified from the *Report on Carcinogens* (10<sup>th</sup> Edition) generated by the National Toxicology Program (2002).

Chemical	CAS Number	Hazard
Acrylonitrile	107-13-1	Flammable (NFPA = 3), reasonably anticipated human carcinogen
Ammonium chromate	7788-98-9	Oxidizer, known human carcinogen
Aniline	62-53-3	Combustible, may be fatal if inhaled, ingested or absorbed through the skin
Aniline hydrochloride	142-04-1	May be fatal if inhaled, ingested, or absorbed through the skin
Anthracene	102-12-7	Irritant, may cause an allergic skin reaction
Antimony trichloride	10025-91-9	Corrosive
Arsenic and its compounds	N/A	Known human carcinogen
Asbestos	1332-21-4	Known human carcinogen
Ascarite II	N/A	Corrosive, may be fatal if ingested
Benzene	71-43-2	Flammable (NFPA = 3), known human carcinogen, mutagen
Benzoyl peroxide	94-36-0	Flammable (NFPA = 3), explosive, oxidizer
Calcium cyanide	592-01-8	May be fatal if inhaled or ingested
Carbon disulfide	75-15-0	Flammable (NFPA = 4), acute cns toxicity and peripheral neurotoxicity

Carbon tetrachloride	56–23–5	May be fatal if inhaled or ingested, reasonably anticipated human carcinogen
Chloral hydrate	302–17–0	Controlled barbiturate
Chlorine	7782–50–5	Oxidizer, corrosive, may be fatal if inhaled
Chloroform	67–66–3	Reasonably anticipated human carcinogen
Chlorpromazine	50–53–3	Controlled substance
Chromium hexavalent compounds	N/A	Known human carcinogen
Chromium trioxide	1333–82–0	Oxidizer, Corrosive, known human carcinogen
Colchicine	64–86–8	May be fatal if ingested, mutagen
p-Dichlorobenzene	106–46–7	Combustible, reasonably anticipated human carcinogen
Dimethyl aniline	121–69–7	May be fatal if inhaled, ingested, or absorbed through the skin
p-Dioxane	123–91–1	Flammable (NFPA = 3), forms peroxides (Group 2), reasonably anticipated human carcinogen
Ethylene dichloride (1,2-Dichloroethane)	107–06–2	Flammable (NFPA = 3), reasonably anticipated human carcinogen, mutagen
Ethylene oxide	75–21–8	Flammable (NFPA = 4), explosive (NPFA = 3), may be fatal if inhaled or absorbed through the skin, known human carcinogen
Gunpowder	N/A	Explosive
Hexachlorophene	70–30–4	May be fatal if inhaled, ingested or absorbed through the skin, possible teratogen
Hydro bromic acid	10035–10–6	Corrosive, may be fatal if inhaled or ingested
Hydrofluoric acid	7664–39–3	Corrosive, may be fatal if inhaled or ingested (liquid and vapor can cause severe burns not always immediately painful or visible but possibly fatal)
Hydrogen	1333–74–0	Flammable (NFPA = 4)
Hydronic acid	10034–85–2	Corrosive, may be fatal if inhaled or ingested
Lead arsenate	7784–40–9	Known human carcinogen, teratogen
Lead carbonate	1319–46–6	May be fatal if inhaled or ingested, neurotoxic
Lead (VI) chromate	7758–97–6	May be fatal if inhaled or ingested, known human carcinogen
Lithium, metal	7439–93–2	Combustible, water reactive
Lithium nitrate	7790–69–4	Oxidizer
Magnesium, metal (powder)	7439–95–4	May ignite spontaneously on contact with water or damp materials
Mercury	7439–97–6	Corrosive, may be fatal if inhaled or ingested
Mercuric chloride	7487–94–7	May be fatal if inhaled, teratogen
Methyl iodide (iodomethane)	74–88–4	May be fatal if inhaled, ingested or absorbed through the skin, potential carcinogen (NIOSH)

Methyl methacrylate	80–62–6	Flammable (NFPA = 3), explosive (vapor)
Methyl orange	547–58–0	Possible mutagen
Methyl red	493–52–7	Possible mutagen
Nickel, metal	7440–02–0	Reasonably anticipated human carcinogen, mutagen
Nickel oxide	1314–06–3	Reasonably anticipated human carcinogen, mutagen
Nicotine	45–11–5	May be fatal if inhaled, ingested, or absorbed through the skin
Osmium tetroxide	20816–12–0	May be fatal if inhaled or ingested
Paris green	12002–03–8	May be fatal if inhaled, ingested or absorbed through the skin, known human carcinogen
Phenol	108–95–2	Combustible (liquid and vapor), corrosive, may be fatal if inhaled, ingested or absorbed through the skin
Phosphorus pentoxide	1314–56–3	Water reactive, corrosive
Phosphorous, red, white	7723–14–0	May ignite spontaneously in air
Phthalic anhydride	85–44–9	Combustible/finely dispersed <b>particles form explosive mixtures in air, corrosive</b>
Potassium, metal	7440–09–7	Flammable (nfpa = 3), water <b>reactive, forms peroxides</b>
Potassium oxalate	583–52–8	Corrosive, may be fatal if ingested
Potassium sulfide	1312–73–8	Spontaneously combustible, <b>explosive in dust or powder</b> form, corrosive
Pyridine	110–86–1	Flammable (nfpa = 3), possible mutagen
Selenium	7782–49–2	Severe irritant
Silver cyanide	506–64–9	May be fatal if inhaled, ingested or absorbed through the skin
Silver nitrate	7761–88–8	Oxidizer, corrosive, may be fatal if ingested
Silver oxide	20667–12–3	Oxidizer
Sodium arsenate	7778–43–0	May be fatal if inhaled or ingested, known human carcinogen
Sodium arsenite	7784–46–5	Known human carcinogen, <b>teratogen</b>
Sodium azide	26628–22–8	Explosive, may be fatal if ingested or absorbed through the skin
Sodium chromate	7775–11–3	Oxidizer, corrosive, known human carcinogen
Sodium cyanide	143–33–9	May be fatal if inhaled, ingested or absorbed through the skin
Sodium dichromate	10588–01–9	Oxidizer, corrosive, may be fatal if ingested, known human <b>carcinogen</b>
Sodium nitrite	7632–00–0	Oxidizer
Sodium sulfide	1313–82–2	Corrosive, may be fatal if inhaled or ingested
Sodium thiocyanide	540–72–7	Contact with acid liberates very toxic gas

Stannic chloride(anhydrous)	7646–78–8	Corrosive, hydrochloric acid <b>liberated upon contact with</b> moisture and heat
Stearic acid	57–11–4	May form combustible dust <b>concentration in the air</b>
Strontium	7440–24–6	Water reactive
Strontium nitrate	10042–76–9	Oxidizer
Sudan IV	85–83–6	Irritant, toxic properties have not been thoroughly evaluated
Sulfuric acid, fuming	8014–95–7	Corrosive, may be fatal if ingested
Tannic acid	1401–55–4	Irritant
Tetrabromoethane	79–27–6	May be fatal if inhaled, ingested or absorbed through the skin
Thioacetamide	62–55–5	Reasonably anticipated human carcinogen
Thiourea	62–56–6	Reasonably anticipated human carcinogen
Titanium trichloride	7705–07–9	Water reactive, corrosive
Titanium tetrachloride	7550–45–0	Water reactive, corrosive, may be fatal if inhaled
o-Toluidine	95–53–4	Reasonably anticipated human carcinogen, mutagen
Uranium	7440–61–1	Radioactive material
Uranyl acetate	541–09–3	Radioactive material
Urethane	51–79–6	Combustible, reasonably <b>anticipated human carcinogen</b>
Wood's metal	8049–22–7	May be fatal if inhaled or ingested, known human carcinogen ( <b>cadmium</b> ), <b>neurotoxic</b>

# Hazard Communication and Right to Know

I have attended the Hazard Communication Training and have received information on the following:

- ☐ An overview of the requirements contained in the Hazard Communication Standard found at 29 CFR 1910.1200
- ☐ Chemicals present in the work place
- ☐ Location and availability of our written hazard program
- ☐ Physical and health effects of hazardous chemicals
- ☐ How to lessen or prevent exposure to these chemicals through usage of control/work practices and personal protective equipment (Keep Out Of Reach Of Children)
- ☐ How to read labels and review Safety Data Sheets to obtain appropriate hazard information
- ☐ Location of Safety Data Sheet Books and location of hazardous chemical inventory

I understand that unsafe work practices with the use of hazardous chemicals could result in the endangerment to students and other employees resulting in the voluntary forfeiture of my position.

\_\_\_\_\_  
Employee Name (Please Print)

\_\_\_\_\_  
Employee Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Sharon Gardner, RSS Chemical Hygiene Officer  
Phil Dobbins, Manager of Custodial Services  
Mike Austin, Energy Coordinator  
Site or School, Chemical Hygiene Person

\_\_\_\_\_  
Date

## Fire

### Administrator's Responsibilities:

- Evacuate the building by using the fire alarm.
- Call "9" 911; give the specific location, if known.
- Determine if students/staff need to evacuate campus, request transportation to the designated site.
- Call Central Office at 704.636.7500
- Clear exterior access to building.
- Assist the fire department with locating the utilities. (Carry black box out)
- Ensure the building is evacuated.
- Signal an "All Clear" when appropriate.

### Staff's Responsibilities:



- Close windows and doors: do not lock
- Be alert to assist any student with a disability.
- Evacuate students quietly and in an orderly fashion.
- Bring class rosters.
- Report to your designated area and review student attendance.
- Report any missing students immediately to an Administrator.
- Return to building only after the building Administrator gives the “All Clear” signal.

## Earthquake Drill

- **Drop to the ground** (before the earthquake makes you fall).
- **Take cover** under a sturdy desk or table.
- **Hold on to the desk** until the shaking stops.
- If there is not a table or desk nearby, crouch in an inside corner of a building and cover your head and neck with your hands and arms.
- Stay away from bookshelves, lamps, TVs, cabinets and other objects as much as possible. Such items may fall and cause injuries.
- DO NOT stand or sit in a doorway. They are not safe and will not protect you from falling or flying objects.
- DO NOT run outside. Running in an earthquake is dangerous. The ground is moving, making it easy to fall or be injured by falling structures, trees, or debris/ glass.

## • Bomb Threat

Call “9” **911** to report the emergency. Do not call if it is a drill.

Call the Superintendent’s office. 704.636.7500

### **DO NOT USE CELL PHONES!**

Evacuate the school. Exit the building following the fire drill exit plan, unless otherwise ordered; proceed to the rally points or further away if ordered.

### **DO NOT:**

- Use cell phones or other electronic devices. Radio frequencies have the potential to detonate a bomb.
- Move buses or your vehicles, as they may be the target of the bombing.
- Turn lights on or off, as this may also detonate a bomb.
- Activate the alarm system in any building.
- Use an elevator.
- Touch or move a suspicious package, but do make a mental note of the location, size and other information to share with law enforcement.

No one re-enters the building until the "All-Clear" is given by law enforcement.

If an evacuation is necessary, transportation will be provided.

Everyone will be evacuated to your site evacuation location.

**In case of evacuation, procedures for a bomb threat would be the same as a lockdown evacuation.**

## BOMB THREAT CALL PROCEDURES

Most bomb threats are received by phone. Bomb threats are serious until proven otherwise. Act quickly, but remain calm and obtain information with the checklist on the reverse of this card.

### If a bomb threat is received by phone:

1. Remain calm. Keep the caller on the line for as long as possible. DO NOT HANG UP, even if the caller does.
2. Listen carefully. Be polite and show interest.
3. Try to keep the caller talking to learn more information.
4. If possible, write a note to a colleague to call the authorities or, as soon as the caller hangs up, immediately notify them yourself.
5. If your phone has a display, copy the number and/or letters on the window display.
6. Complete the Bomb Threat Checklist (reverse side) immediately. Write down as much detail as you can remember. Try to get exact words.
7. Immediately upon termination of the call, do not hang up, but from a different phone, contact FPS immediately with information and await instructions.

### If a bomb threat is received by handwritten note:

- Call \_\_\_\_\_
- Handle note as minimally as possible.

### If a bomb threat is received by email:

- Call \_\_\_\_\_
- Do not delete the message.

### Signs of a suspicious package:

- No return address
- Excessive postage
- Stains
- Strange odor
- Strange sounds
- Unexpected delivery
- Poorly handwritten
- Misspelled words
- Incorrect titles
- Foreign postage
- Restrictive notes

### DO NOT:

- Use two-way radios or cellular phone; radio signals have the potential to detonate a bomb.
- Evacuate the building until police arrive and evaluate the threat.
- Activate the fire alarm.
- Touch or move a suspicious package.

## WHO TO CONTACT (select one)

- Follow your local guidelines
- Federal Protective Service (FPS) Police  
1-877-4-FPS-411 (1-877-437-7411)
- 911

2013 RSSS Safety Department

## BOMB THREAT CHECKLIST

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Time Caller Hung Up: \_\_\_\_\_ Phone Number Where Call Received: \_\_\_\_\_

### Ask Caller:

- Where is the bomb located?  
(Building, Floor, Room, etc.)
- When will it go off?
- What does it look like?
- What kind of bomb is it?
- What will make it explode?
- Did you place the bomb? Yes No
- Why?
- What is your name?

### Exact Words of Threat:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### Information About Caller:

- Where is the caller located? (Background and level of noise)
- Estimated age: \_\_\_\_\_
- Is voice familiar? If so, who does it sound like? \_\_\_\_\_
- Other points: \_\_\_\_\_

### Caller's Voice

- ☐ Accent
- ☐ Angry
- ☐ Calm
- ☐ Clearing throat
- ☐ Coughing
- ☐ Cracking voice
- ☐ Crying
- ☐ Deep
- ☐ Deep breathing
- ☐ Disguised
- ☐ Distinct
- ☐ Excited
- ☐ Female
- ☐ Laughter
- ☐ Lisp
- ☐ Loud
- ☐ Male
- ☐ Nasal
- ☐ Normal
- ☐ Ragged
- ☐ Rapid
- ☐ Raspy
- ☐ Slow
- ☐ Slurred
- ☐ Soft
- ☐ Stutter

### Background Sounds:

- ☐ Animal Noises
- ☐ House Noises
- ☐ Kitchen Noises
- ☐ Street Noises
- ☐ Booth
- ☐ PA system
- ☐ Conversation
- ☐ Music
- ☐ Motor
- ☐ Clear
- ☐ Static
- ☐ Office machinery
- ☐ Factory machinery
- ☐ Local
- ☐ Long distance

### Threat Language:

- ☐ Incoherent
- ☐ Message read
- ☐ Taped
- ☐ Irrational
- ☐ Profane
- ☐ Well-spoken

### Other Information:



**Homeland  
Security**



# Evacuation Procedures

## Administrator's Responsibilities:

- The principal, or as principal designee, is authorized to evacuate the building when a dangerous or potentially dangerous condition (e.g., leaking gas, small fire, internal disruption, bomb threats, etc.) threatens the safety of the school.
- Signal an evacuation from the building by using the fire alarm.
- Call "9" 911.
- If an off-site evacuation is needed, contact the Transportation Department at 704.639.3051. Dial "0" for immediate assistance, and buses will be dispatched to your site.
- Call Central Office at 704.636.7500. Central Office will inform parents.

## Staff's Responsibilities:

- Follow the evacuation routes posted in the room unless otherwise advised.
- Take your class roster/attendance book and exit at least 300 ft. from the building.
- Close your classroom doors when leaving the room.
- Once outside, take a roll call.
- Report any missing student(s) immediately to the Administrator/Emergency Responder.
- Remain with class and await for further instructions from the Administrator.

# Weapons on School Property

Follow these procedures within the building whenever you know or suspect a student may have a weapon in a locker, car, or anywhere else on school property.

## Administrator's Responsibilities:

- Declare a lockdown if the situation appears threatening to the safety of the building.
- Call "9" 911.
- Call Central Office at 704.636.7500.
- Determine if a reasonable suspicion exists to search for a weapon.

## Staff's Responsibilities:

- Notify the Administrator.
- Do not attempt to approach perpetrator or confiscate weapon.
- If a weapon is found, isolate the area and do not touch the weapon. Law Enforcement will secure it for evidence.
- Await further instructions from Administrator

## PM Custodial Responsibilities:

- Same as Administrator's Responsibilities.
- Call Administrator.

# Severe Weather

**Tornado Watch:** Conditions are right for a tornado.

**Tornado Warning:** A funnel cloud has been sighted. Take Cover.

**At the first sign of lightning, all students should be inside the building.**

### Administrator's Responsibilities:

- Office staff to monitor the Early Warning Weather Radio.
- Administrator should monitor developing weather conditions.
- If conditions warrant, protective measures should be taken.
- Order students and staff to proceed to the assigned shelter.
- If there is a medical emergency, call "9" 911.
- Administrator announces when it's clear for student's/staff to return to their rooms.
- If damage has occurred to the building, the Administrator is to evacuate the affected areas/campus.
- Discourage the release of students until the severe weather passes.

### Staff's Responsibilities:

- Shelter in place, or proceed to other areas of the building as directed.
- Account for all classroom occupants.
- Remain calm.
- Close windows and doors; do not lock.
- Take your record/attendance book.
- Report to your designated area and call roll.
- If you have additional or missing students, notify the Administrator/Emergency Responders.
- Await further instruction from the Administrator.
- Return to your designated area when "All Clear" is announced.

**In the event a situation develops at school, the principal has at his/her disposal the Lockdown Protocols to assist with ensuring the safety of the students, faculty and staff under their direction. There are two levels of lockdown from which a principal selects.**

**If a Lockdown is determined to be necessary, the principal or designated representative will make an announcement over the school PA system starting the Lockdown procedure. This announcement is to be clear, concise, and calm, such as "We are now going to Lockdown" or some wording to that effect. Upon hearing the Lockdown announcement *all* teachers, support staff, and administration will begin to lockdown the school based upon the level selected.**

**Full (RED) lockdown is the protocol used in the event danger is visible on campus and immediate action is required.**

Teachers in the Classroom

**A. In the classroom, teachers will direct their students to a predetermined area and to instruct them to sit on the floor quietly.**

**B. At the same time, the teacher will check the halls and direct any student in the hallway to come into his/her classroom. The teachers will then lock the door, turn out the lights and place the appropriate placard under the door.**

1. *Green Placard* if the teacher is in control of the class and there are *NO EMERGENCIES/INJURIES*.
2. *Red Placard* if the teacher requires *EMERGENCY ASSISTANCE*.

- b. The teacher will then, ensure that the blinds to the classroom are closed and down to the window sill, and a red or green placard has been placed under the blinds facing out. Be certain the placard is not concealed by window art.
- c. The teacher will then join the students on the floor or seated in a chair amongst them to await further instructions. Under no circumstance should the teacher be standing.
- d. Do not unlock the doors for anyone. Emergency responders will be issued master keys to allow them direct entry to the classroom.

**I. Teachers in the Hallway**

- A. If moving in the hallway, the teacher will direct their students into the first available room. Do not attempt to make it to your classroom unless it is the first available room. If another class occupies the room, combine classes and follow the procedure listed above. If there are too many students to get out of sight, cover the window in the door with any available material.
- B. Both teachers need to join the students on the floor or in chairs amongst them. Under no circumstance should the teacher, be standing above the students.

**II. Teachers on the Playgrounds**

- A. If the class is outside of the school building, the teacher will direct their students to a predetermined location away from the school complex. The teacher is to wait until law enforcement can escort them to the schools evacuation location.
- B. Do not bring the student back into the school if a lockdown is called. This, in all likelihood, would only bring those students and teacher back into harm's way.
- C. When loading busses for a field trip, the teacher must make a decision as to whether he/she can quickly get the remaining students on the bus so the bus can depart the campus. If not the teacher should take the remaining students and proceed on foot to the predetermined rally location and let the bus leave.

**III. School Administrators**

- A. If, in the opinion of the principal or designated representative, a lockdown is appropriate for the safety of the school, staff and students;
  - 1. The principal or he/she representative should call for a Lockdown.
  - 2. A member of the administrative staff should call 911 and Central Office (704.636.7500) Central Office will inform the superintendent that a lockdown has taken place and provide as much information as possible. Administrative staff will contact nearby schools about the lockdown so these schools determine a lockdown is needed as well.
  - 3. The emergency response kit should be taken from its storage location and be available for the first officers to arrive.
  - 4. If the school's bells are on an automated system, switch the bells from automatic to manual.
- B. If law enforcement is called and a criminal act has taken place, the principal will turn the situation over to the law enforcement upon arrival.

**Partial (YELLOW)** is the protocol that is used in the event that there is a perceived danger in the area and an increased level of security is warranted.

**I. Teachers in the Classroom**

- A. The teacher will direct any student in the hall to return to their respective classroom.
- B. The teacher will close the blinds in their classroom, lock the hallway door and continue to teach.

**II. Teachers in the Hallway**

- A. Any teacher or faculty member in the hallway at the time a yellow lockdown is called will direct any student seen to return to his/her classroom and in turn will return to his/her own room to secure it.

### III Teachers on the Playground

- A. All teachers will suspend their outside activities and return to the safety of their classrooms where they will secure their class and continue with the day's lesson.**

### IV School Administrators

- A. The Principal or designated representative will notify 911, surrounding schools, and Central Office to advise them that a lockdown has taken place and provide as much information as possible.**

### V Custodians

- A. All custodians should make a tour of all exterior doors and ensure that they are locked and latched.**
- B. Upon completion of the security check, the custodians will make themselves available to the principal. They will be available as escorts from the front door to the office and back for individuals who have business with the school; escort classes from the classroom to the bath room, cafeteria, gym, and to the office for early dismissal for appointments.**
- C. The custodians should perform any other duties with which the principal requires assistance.**

**Offsite evacuation:** Organizes use of off-site location to include: selecting evacuation routes, planning the safe movement of students to the location: assisting with student accounting once they are moved: planning for the movement of special needs student and staff. Coordinates with Crisis Team to manage the move and parent reunification process.

**On site evacuation:** (We need to make sure that each school has a written plan. Sgt. Price suggests that we have at least 2 different sites if not 3. Each school needs to have a plan in their black box.)  
Need to write this

### Crisis Team

Dr. Lynn Moody  
Dr. Julie Morrow  
April Kuhn  
Anthony Vann  
Kristi Rhone  
Rita Foil  
Sharon Gardner  
Carol Ann Houpe  
Tim Beck  
Eric Nianouris  
Sharon Beck  
Susan McClary  
Lisa Bracewell  
Dr. Sandra Albert

Crisis Box: Carol Ann Houpe has one in her office. Sharon Gardner, Risk Manager has one in her car

# Hazard Communication and Right to Know

I have attended the Hazard Communication Training and have received information on the following:

- ☐ An overview of the requirements contained in the Hazard Communication Standard found at 29 CFR 1910.1200
- ☐ Chemicals present in the work place
- ☐ Location and availability of our written hazard program
- ☐ Physical and health effects of hazardous chemicals
- ☐ How to lessen or prevent exposure to these chemicals through usage of control/work practices and personal protective equipment (Keep Out Of Reach Of Children)
- ☐ How to read labels and review Safety Data Sheets to obtain appropriate hazard information
- ☐ Location of Safety Data Sheet Books and location of hazardous chemical inventory

I understand that unsafe work practices with the use of hazardous chemicals could result in the endangerment to students and other employees resulting in the voluntary forfeiture of my position.

\_\_\_\_\_  
Employee Name (Please Print)

\_\_\_\_\_  
Employee Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Sharon Gardner, RSS Chemical Hygiene Officer  
Phil Dobbins, Manager of Custodial Services  
Mike Austin, Energy Coordinator  
Site or School, Chemical Hygiene Person

\_\_\_\_\_  
Date



# SDS Sheet Example

## \* 1 Identification

- **Product identifier**
- **Trade name:** 10N Sodium Hydroxide (NaOH)
- **Product number:** NGT-10N NaOH
- **Product description** PC21 L a b o r a t o r y chemicals
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
NuGeneration Technologies, LLC (dba NuGenTec)  
1155 Park Avenue, Emeryville, CA 94608  
[salesteam@nugentec.com](mailto:salesteam@nugentec.com)  
888-996-8436 or 707-820-4080 for product information
- **Emergency telephone number:** Infotrac: 1-800-535-5053, 1-352-326-2510

## \* 2 Hazard(s) identification

- **Classification of the substance or mixture**



Corrosion

Causes severe skin burns and eye damage.

- **Label elements**
- **GHS label elements**  
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



- **Signal word** Danger
- **Hazard-determining components of labeling:**  
caustic soda
- **Hazard statements**  
Causes severe skin burns and eye damage.
- **Precautionary statements**  
If medical advice is needed, have product container or label at hand.  
Keep out of reach of children.  
Read label before use.  
Do not breathe dust/fume/gas/mist/vapors/spray.  
Wear protective gloves/protective clothing/eye protection/face protection.  
Wash thoroughly after handling.  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Specific treatment (see on this label).

USA

**Trade name: 10N Sodium Hydroxide (NaOH)**

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Wash contaminated clothing before reuse.

IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

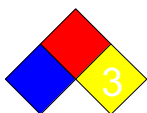
Immediately call a POISON CENTER/doctor.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme

· **NFPA ratings (scale 0 - 4)**



Health = 3  
Fire = 0  
Reactivity = 1

· **HMIS-ratings (scale 0 - 4)**



3 Health = 3  
0 Fire = 0  
Reactivity = 1

### 3 Composition/information on ingredients

7732-18-5 water, distilled, conductivity or of similar purity

40-60%

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous Components:**

1310-73-2 caustic soda



Skin Corr. 1A. H314

25-50%

### 4 First-aid measures

· **Description of first aid measures**

· **General information:** Immediately remove any clothing soiled by the product.

· **After inhalation:**

In case of unconsciousness, place patient securely on side position for transportation.

· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:** Drink copious amounts of water and provide fresh air. Immediately call a doctor.

· **Most important symptoms and effects, both acute and delayed**

No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

Trade name: 10N Sodium Hydroxide (NaOH)

## 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust). Use neutralizing agent.  
Dispose contaminated material as waste according to section 13.  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see section 7.

**Trade name: 10N Sodium Hydroxide (NaOH)**

· **Control parameters**

· **Components with occupational exposure limits:**

**1310-73-2 caustic soda**

PEL Long-term value: 2 mg/m<sup>3</sup>

REL Ceiling limit value: 2 mg/m<sup>3</sup>

TLV Ceiling limit value: 2 mg/m<sup>3</sup>

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:** Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· **Breathing equipment:** Not required.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Select glove material based on penetration times, rates of diffusion and degradation.

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

· **Eye protection:** Tightly sealed goggles

## 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:

Liquid

Color:

Colorless

· **Odor:**

Odorless

· **Odor threshold:**

Not determined.

· **pH-value @ 20 °C (68 °F):**

>13.7

**Trade name: 10N Sodium Hydroxide (NaOH)**

- **Change in condition**
  - Melting point/Melting range:** --
  - Boiling point/Boiling range:** 100 °C (212 °F)
- **Flash point:** Not applicable.
- **Flammability (solid, gaseous):** Not applicable.
- **Ignition temperature:**
  - Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not self-igniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**
  - Lower:** 0.0 Vol %
  - Upper:** 0.0 Vol %
- **Vapor pressure @ 20 °C (68 °F):** 23 hPa (17 mm Hg)
- **Density @ 20 °C (68 °F):** 1.452 g/cm<sup>3</sup> (12.117 lbs/gal)
- **Relative density** not determined.
- **Vapor density** not determined.
- **Evaporation rate** not determined.
- **Solubility in / Miscibility with Water:** Fully miscible.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - Dynamic @ 20 °C (68 °F):** 1 mPas
  - Kinematic:** Not determined.
- **Solvent content:**
  - Organic solvents:** 0.0 %
  - Water:** 60.0 %
- **Solids content:** 40.0 %
- **Other information** No further relevant information available.

**10 Stability and reactivity**

- **Reactivity** No further relevant information available.
- **Chemical stability** Product is stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:**
  - No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.

**Trade name: 10N Sodium Hydroxide (NaOH)**

· **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

· **Information on toxicological effects**

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

**1310-73-2 caustic soda**

Oral LD50 2000 mg/kg (rat)

· **Primary irritant effect:**

· **on the skin:** Strong caustic effect on skin and mucous membranes.

· **on the eye:**

Strong caustic effect.

Corrosive effect.

· **Additional toxicological information:**

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

The product shows the following dangers according to internally approved calculation methods for preparations:

Corrosive

Swallowing will lead to a corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

A carcinogenicity study of buprenorphine/naloxone (4:1 ratio of free bases) was performed in Alderley Park rats. Buprenorphine/naloxone was administered in the diet at doses of approximately 7, 31 and 123 mg/kg/day for 104 weeks (estimated buprenorphine exposure was approximately 4, 18, 44 times the recommended human buccal dose based on buprenorphine AUC comparisons). A statistically significant increase in Leydig cell adenomas was observed in all dose groups. No other drug related tumors were noted.

Carcinogenicity studies of buprenorphine were conducted in Sprague-Dawley rats and CD-1 mice. Buprenorphine was administered in the diet to rats at doses of 0.6, 5.5 and 56 mg/kg/day for 27 months. As in the buprenorphine/naloxone carcinogenicity study in rat, statistically significant dose related increases in Leydig cell tumors occurred. In an 86 week study in CD-1 mice, buprenorphine was not carcinogenic at dietary doses up to 100mg/kg/day (estimated buprenorphine exposure was approximately 30 times the recommended human buccal dose).

· **NTP (National Toxicology Program)**

None of the ingredients are listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients are listed.

Trade name: 10N Sodium Hydroxide (NaOH)

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (Self-assessment): slightly hazardous for water  
Must not reach bodies of water or drainage ditch undiluted or unneutralized.  
Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water- dangerous.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

- **UN-Number**
- **DOT, ADR, IMDG, IATA**
- **UN proper shipping name**
- **DOT**
- **ADR**
- **IMDG, IATA**
- **Transport hazard class (es)**
- **DOT**



- **Class**

UN1824

Sodium hydroxide solution  
UN1824 Sodium hydroxide solution  
SODIUM HYDROXIDE SOLUTION

8 Corrosive substances

**Trade name: 10N Sodium Hydroxide (NaOH)**

· **Label** 8

· **ADR**



· **Class** 8 (C5) Corrosive substances

· **Label** 8

· **IMDG, IATA**



· **Class** 8 Corrosive substances

· **Label** 8

· **Packing group**

· **DOT, ADR, IMDG, IATA** II

· **Environmental hazards:**

· **Marine pollutant:** No

· **Special precautions for user** Warning: Corrosive substances

· **Danger code (Kemler):** 80

· **EMS Number:** F-A, S-B

· **Segregation groups** Alkalis

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

· **Transport/Additional information:**

· **DOT**

· **Quantity limitations** On passenger aircraft/rail: 1 L

On cargo aircraft only: 30 L

· **ADR**

· **Excepted quantities (EQ)** Code: E2  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 500 ml

· **IMDG**

· **Limited quantities (LQ)** 1L

· **Excepted quantities (EQ)** Code: E2  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 500 ml

· **UN "Model Regulation":** UN1824, Sodium hydroxide solution, 8, II



**Trade name: 10N Sodium Hydroxide (NaOH)**

## 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

- **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

- **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

- **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

- **Proposition 65**

- **Chemicals known to cause cancer:**

None of the ingredients are listed.

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

- **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients are listed.

- **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients are listed.

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

This product is listed as a hazardous material under criteria of the Federal OSHA Hazard Communication Standard, 29 CFR 1910.1200.

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS05

- **Signal word** *Danger*

- **Hazard-determining components of labeling:**

Caustic soda

- **Hazard statements**

Causes severe skin burns and eye damage.

**Trade name: 10N Sodium Hydroxide (NaOH)**

· **Precautionary statements**

*If medical advice is needed, have product container or label at hand.*

*Keep out of reach of children.*

*Read label before use.*

*Do not breathe dust/fume/gas/mist/vapors/spray.*

*Wear protective gloves/protective clothing/eye protection/face protection.*

*Wash thoroughly after handling.*

*IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.*

*IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*

*Specific treatment (see on this label).*

*IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.*

*Wash contaminated clothing before reuse.*

*IF SWALLOWED: rinse mouth. Do NOT induce vomiting.*

*Immediately call a POISON CENTER/doctor.*


*Store locked up.*

*Dispose of contents/container in accordance with local/regional/national/international regulations.*

· **National regulations:**

*The product is subject to be labeled according with the prevailing version of the regulations on hazardous substances.*

· **State Right to Know**

1310-73-2	caustic soda	 Skin Corr. 1A H314	25-50%
7732-18-5	water, distilled, conductivity or of similar purity		40-60%
All ingredients are listed.			

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**16 Other information**

*The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.*

· **Date of preparation / last revision** 08/10/2014 / 2

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the

International Carriage of Dangerous Goods by Road) IMDG:

International Maritime Code for Dangerous Goods DOT: US

Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists EINECS:

European Inventory of Existing Commercial Chemical Substances ELINCS:

European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A

**Trade name: 10N Sodium Hydroxide (NaOH)**

*\* Data compared to the previous version altered.*

Feedback Suggestions for Draft CHP:

1. **Material Safety Data Sheet (MSDS)** are being phased out according to the OSHA Hazard Communication Standard 2012 revision. All new label and **Safety Data Sheet (SDS)** requirements must be in place for chemicals shipped by June 1, 2015. MSDS are maintained until chemicals are re-ordered with SDS. (Replace references to “MSDS” to “MSDS/SDS” on pages 1, 2, 4, 11, 12, and 21) \* see OSHA Briefs on Safety Data Sheets and Labels and Pictograms (Suggestion is to include these in the Appendix)
2. Workplace labels can be used when transferring chemicals to other containers. However, those labels must not contradict the GHS labeling components. \*see OSHA Quick Card Comparison of NFPA and HazCom Labels
  - a. Please clarify what is intended by 4.4.3 on page 11 “All containers with chemicals should be labeled with the same type of labels. Rowan-Salisbury Schools has recommended that the Fisher Scientific type labels be used on all chemical containers in high schools and the NIOSH labels be used for middle and elementary schools.”
  - b. Any labeling of secondary containers should include the chemical name, concentration if it is a solution or mixture, and the appropriate pictogram, signal word, and hazard statement(s). (Suggested by GHS but this component is left up to the organization to determine.)
3. Mercury – Item 5.24 on page 13 – Add “Elemental mercury or instruments containing mercury are not allowed in schools.” In case of a mercury spill, the school administration and the CHO must be notified immediately...
4. Animals that are UNACCEPTABLE for schools: (7.2.3 page 16) move item 8 (since it does not say that they are unacceptable, but that principal pre-approval is required) to page 17 item 7.2.7 to replace “Pet birds shall never be allowed to fly free in the classroom” since item 6 on page 16 states that birds are not allowed in schools.
5. Item 7.2.12 on page 17 can be removed since it is addressed in item 7.2.3-7 on page 16.
6. Remove rabbits from item 7.2.16 on page 17 since rabbits are identified as unacceptable for schools in page 16.
7. Item 7.2.5 on page 17 – surgery on animals is not permitted even with direct teacher supervision. Dissections should be directly related to course standards/objectives.

# OSHA<sup>®</sup> B B R I E F

## 17 Hazard Communication Standard: Labels and Pictograms

OSHA has adopted new hazardous chemical labeling requirements as a part of its recent revision of the Hazard Communication Standard, 29 CFR 1910.1200 (HCS), bringing it into alignment with the United Nations' Globally Harmonized System of Classification and Labelling of Chemicals (GHS). These changes will help ensure improved quality and consistency in the classification and labeling of all chemicals, and will also enhance worker comprehension. As a result, workers will have better information available on the safe handling and use of hazardous chemicals, thereby allowing them to avoid injuries and illnesses related to exposures to hazardous chemicals.

The revised HCS changes the existing Hazard Communication Standard (HCS/HazCom 1994<sup>1</sup>) from a performance-based standard to one that has more structured requirements for the labeling of chemicals. The revised standard requires that information about chemical hazards be conveyed on labels using quick visual notations to alert the user, providing immediate recognition of the hazards. Labels must also provide instructions on how to handle the chemical so that chemical users are informed about how to protect themselves.

The label provides information to the workers on the specific hazardous chemical. While labels provide important information for anyone who handles, uses, stores, and transports hazardous chemicals, they are limited by design in the amount of information they can provide. Safety Data Sheets (SDSs), which must accompany hazardous chemicals, are the more complete resource for details regarding hazardous chemicals. The revised standard also requires the use of a 16-section safety data sheet format, which provides detailed information regarding the chemical. There is a separate [OSHA Brief on SDSs](#) that provides information on the new SDS requirements.

All hazardous chemicals shipped after June 1, 2015, must be labeled with specified elements including pictograms, signal words and hazard and precautionary statements. However, manufacturers,

importers, and distributors may start using the new labeling system in the revised HCS before the June 1, 2015 effective date if they so choose. Until the June 1, 2015 effective date, manufacturers, importers and distributors may maintain compliance with the requirements of HazCom 1994 or the revised standard. Distributors may continue to ship containers labeled by manufacturers or importers (but not by the distributor themselves) in compliance with the HazCom 1994 until December 1, 2015.

This document is designed to inform chemical receivers, chemical purchasers, and trainers about the label requirements. It explains the new labeling elements, identifies what goes on a label, and describes what pictograms are and how to use them.

### **Label Requirements**

Labels, as defined in the HCS, are an appropriate group of written, printed or graphic informational elements concerning a hazardous chemical that are affixed to, printed on, or attached to the immediate container of a hazardous chemical, or to the outside packaging.

The HCS requires chemical manufacturers, importers, or distributors to ensure that each container of hazardous chemicals leaving the workplace is labeled, tagged or marked with the following information: product identifier; signal word; hazard statement(s); precautionary statement(s); and pictogram(s); and name, address and telephone number of the chemical manufacturer, importer, or other responsible party.

To develop labels under the revised HCS, manufacturers, importers and distributors must first identify and classify the chemical hazard(s). Appendices A, B, and C are all mandatory. The classification criteria for health hazards are in Appendix A and the criteria for physical hazards are presented in Appendix B of the revised Hazard Communication Standard. After classifying the hazardous chemicals, the manufacturer, importer or distributor then consults Appendix C to determine the appropriate pictograms, signal words, and hazard and precautionary statement(s), for the chemical label. Once this

information has been identified and gathered, then a label may be created.

#### Label Elements

The HCS now requires the following elements on labels of hazardous chemicals:

- **Name, Address and Telephone Number** of the chemical manufacturer, importer or other responsible party.
- **Product Identifier** is how the hazardous chemical is identified. This can be (but is not limited to) the chemical name, code number or batch number. The manufacturer, importer or distributor can decide the appropriate product identifier. The same product identifier must be both on the label and in section 1 of the SDS.
- **Signal Words** are used to indicate the relative level of severity of the hazard and alert the reader to a potential hazard on the label. There are only two words used as signal words, "Danger" and "Warning." Within a specific hazard class, "Danger" is used for the more severe hazards and "Warning" is used for the less severe hazards. There will only be one signal word on the label no matter how many hazards a chemical may have. If one of the hazards warrants a "Danger" signal word and another warrants the signal word "Warning," then only "Danger" should appear on the label.
- **Hazard Statements** describe the nature of the hazard(s) of a chemical, including, where appropriate, the degree of hazard. For example: "Causes damage to kidneys through prolonged or repeated exposure when absorbed through the skin." All of the applicable hazard statements must appear on the label. Hazard statements may be combined where appropriate to reduce redundancies and improve readability. The hazard statements are specific to the hazard classification categories, and chemical users should always see the same statement for the same hazards no matter what the chemical is or who produces it.
- **Precautionary Statements** describe recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to the hazardous chemical or improper storage or handling. There are four types of precautionary statements: prevention (to minimize exposure); response (in case of accidental spillage or exposure emergency response, and first-aid); storage; and disposal. For example, a chemical presenting a specific target organ toxicity (repeated exposure) hazard would include the following on the label: "Do not breathe dust/fume/gas/mist/ vapors/spray. Get medical advice/attention if you feel unwell. Dispose of contents/ container in accordance with local/regional/ national and international regulations."

A forward slash (/) designates that the classifier can choose one of the precautionary statements. In the example above, the label could state, "Do not breathe vapors or spray. Get medical attention if you feel unwell. Dispose of contents in accordance with local/regional/ national/international regulations." See Examples 1 and 2A of this document as an

example.

In most cases, the precautionary statements are independent. However, OSHA does allow flexibility for applying precautionary statements to the label, such as combining statements, using an order of precedence or eliminating an inappropriate statement.

Precautionary statements may be combined on the label to save on space and improve readability. For example, "Keep away from heat, spark and open flames," "Store in a well-ventilated place," and "Keep cool" may be combined to read: "Keep away from heat, sparks and open flames and store in a cool, well-ventilated place." Where a chemical is classified for a number of hazards and the precautionary statements are similar, the most stringent statements must be included on the label. In this case, the chemical manufacturer, importer, or distributor may impose an order of precedence where phrases concerning response require rapid action to ensure the health and safety of the exposed person. In the self-reactive hazard category Types C, D, E or F, three of the four precautionary statements for prevention are:

- "Keep away from heat/sparks/open flame/hot surfaces. - No Smoking.";
- "Keep/Store away from clothing/.../combustible materials";
- "Keep only in original container."

These three precautionary statements could be combined to read: "Keep in original container and away from heat, open flames, combustible materials and hot surfaces. - No Smoking." Finally, a manufacturer or importer may eliminate a precautionary statement if it can demonstrate that the statement is inappropriate.

- **Supplementary Information.** The label producer may provide additional instructions or information that it deems helpful. It may also list any hazards not otherwise classified under this portion of the label. This section must also identify the percentage of ingredient(s) of unknown acute toxicity when it is present in a concentration of  $\geq 1\%$  (and the classification is not based on testing the mixture as a whole). If an employer decides to include additional information regarding the chemical that is above and beyond what the

standard requires, it may list this information under what is considered “supplementary information.” There is also no required format for how a workplace label must look and no particular format an employer has to use; however, it cannot contradict or detract from the required information.

An example of an item that may be considered supplementary is the personal protective equipment (PPE) pictogram indicating what workers handling the chemical may need to wear to protect themselves. For example, the Hazardous Materials Information System (HMIS) pictogram of a person wearing goggles may be listed. Other supplementary information may include directions of use, expiration date, or fill date, all of which may provide additional information specific to the process in which the chemical is used.

- Pictograms are graphic symbols used to communicate specific information about the hazards of a chemical. On hazardous chemicals being shipped or transported from a manufacturer, importer or distributor, the required pictograms consist of a red square frame set at a point with a black hazard symbol on a white background, sufficiently wide to be clearly visible. A square red frame set at a point without a hazard symbol is not a pictogram and is not permitted on the label.

The pictograms OSHA has adopted improve worker safety and health, conform to the GHS, and are used worldwide.

While the GHS uses a total of nine pictograms, OSHA will only enforce the use of eight. The environmental pictogram is not mandatory but may be used to provide additional information. Workers may see the ninth symbol on a label because label preparers may choose to add the environment pictogram as supplementary information. Figure 1 shows the symbol for each pictogram, the written name for each pictogram, and the hazards associated with each of the pictograms. Most of the symbols are already used for transportation and many chemical users may be familiar with them.

## 17.2 Figure 1: Pictograms and Hazards

It is important to note that the OSHA pictograms do not replace the diamond shaped labels that the U.S. Department of Transportation (DOT) requires for the transport of chemicals, including chemical drums, chemical totes, tanks or other containers. Those labels must be on the external part of a shipped container and must meet the DOT requirements set forth in 49 CFR 172, Subpart E. If a label has a DOT transport pictogram, Appendix C.2.3.3 states that the corresponding HCS pictogram

shall not appear. However, DOT does not view the HCS pictogram as a conflict and for some international trade both pictograms may need to be present on the label. Therefore, OSHA intends to revise C.2.3.3. In the meantime, the agency will allow both DOT and HCS pictograms for the same hazard on a label. While the DOT diamond label is required for all hazardous chemicals on the outside shipping containers, chemicals in smaller containers inside the larger shipped container do not require the DOT diamond but do require the OSHA pictograms. (See Example 2.) Labels must be legible, in English, and prominently displayed. Other languages may be displayed in addition to English. Chemical manufacturers, importers, and distributors who become newly aware of any significant information regarding the hazards of a chemical must revise the label within six months.

**Employer Responsibilities** Employers are responsible for maintaining the labels on the containers, including, but not limited to, tanks, totes, and drums. This means that labels must be maintained on chemicals in a manner which continues to be legible and the pertinent information (such as the hazards and directions for use) does not get defaced (i.e., fade, get washed off) or removed in any way.

The employer is not responsible for updating labels on shipped containers, even if the shipped containers are labeled under HazCom 1994. The employer must relabel items if the labels are removed or defaced. However, if the employer is aware of newly-identified hazards that are not disclosed on the label, the employer must ensure that the workers are aware of the hazards as discussed below under workplace labels.

**Workplace Labels** OSHA has not changed the general requirements for workplace labeling. Employers have the option to create their own workplace labels. They can either provide all of the required information that is on the label from the chemical manufacturer or, the product identifier and words, pictures, symbols or a combination thereof, which in combination with other information immediately available to employees, provide specific information regarding the hazards of the chemicals.

If an employer has an in-plant or workplace system of labeling that meets the requirements of HazCom 1994, the employer may continue to use this system in the workplace as long as this system, in conjunction with other information immediately available to the employees, provides the employees with the information on all of the health and physical hazards of the hazardous chemical. This workplace labeling system may include signs, placards, process sheets, batch tickets, operating procedures, or other such written materials to identify hazardous chemicals. Any of these labeling methods or a combination thereof may be used instead of a label from the manufacturer, importer or distributor as long as the employees have immediate access to all of the information about the hazards of the chemical. Workplace labels must be in



English. Other languages may be added to the label if applicable.

If the employer chooses to use the pictograms that appear in Appendix C on the workplace (or in-plant) labels, these pictograms may have a black border, rather than a red border.

Employers may use additional instructional symbols that are not included in OSHA's HCS pictograms on the workplace labels. An example of an instructional pictogram is a person with goggles, denoting that goggles must be worn while handling the given chemical. Including both types of pictograms on workplace labels is acceptable. The same is true if the employer wants to list environmental pictograms or PPE pictograms from the HMIS to identify protective measures for those handling the chemical. Employers may continue to use rating systems such as National Fire Protection Association (NFPA) diamonds or HMIS requirements for workplace labels as long as they are consistent with the requirements of the Hazard Communication Standard and the employees have immediate access to the specific hazard information as discussed above. An employer using NFPA or HMIS labeling must, through training, ensure that its employees are fully aware of the hazards of the chemicals used.

If an employer transfers hazardous chemicals from a labeled container to a portable container that is only intended for immediate use by the employee who performs the transfer, no labels are required for the portable container.

### Sample Labels

The following examples demonstrate how a manufacturer or importer may display the appropriate information on the label. As mentioned above, once the manufacturer determines the classification of the chemical (class and category of each hazard) using Appendices A and B, it would determine the required pictograms, signal words, hazard statements, and precautionary statements using Appendix C. The final step is to put the information on the label.

The examples below show what a sample label might look like under the revised HCS requirements. The examples break the labeling out into "steps" to show the order of information gathering and how label creation occurs. Step 1 is performing classification; step 2 is gathering full label information; and step 3 is creating the label.

These examples are for informational purposes only and are not meant to represent the only labels manufacturers, importers and distributors may create for these hazards.

### Example 1: This example demonstrates a Precautionary Statement simple label.

Prevention• Wash hands and face thoroughly after handling The Substance.  
HS85• Do not eat, drink or smoke when using this Batch Number: 85L6543 product.

#### Step 1: Perform Classification

Class: Acute Oral Toxicity; Category 4

#### Step 2: Gather Labeling Information

Pictograms:



Signal

Storage: None specified

Word:•  
WARNING

#### Hazard Statements:

Harmful if Swallowed

Response:

If swallowed: Call a doctor if you feel unwell.<sup>2</sup>

Rinse mouth

Disposal:

Dispose of contents/container in accordance with local/regional/national/international regulations.<sup>3</sup>

#### Step 3: Create the Label


Putting together the above information on HS85, a label might list the following information:

---

determined that calling a doctor was the most appropriate emergency medical advice; therefore, it is listed as part of the first-aid procedures.

It is impractical to expect the label preparer to list all potential regulations that exist.

## 17.3 Example 1: HS85 Label

<p><b>HS85</b></p> <p>Batch number: 85L6543</p>  <p><b>Warning</b> Harmful if swallowed</p> <p>Wash hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Dispose of contents/container in accordance with local, state and federal regulations.</p> <p><b>First aid:</b> If swallowed: Call a doctor if you feel unwell. Rinse mouth.</p> <p>GHS Example Company, 123 Global Circle, Anyville, NY 130XX</p> <p>Telephone (888) 888-8888</p>
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### Example 2: This example demonstrates a more complex label.

Example 2 is for a substance that is a severe physical and health hazard. For shipping packages of chemicals that will be transported in the United States (i.e., drums, totes, tanks, etc.), the U.S. DOT requires a DOT label(s) on the outside container(s) for hazardous chemicals. Two versions of this label are presented below to demonstrate the difference between an OSHA label with pictograms from the HCS and a DOT label required for transport of a shipping container.

#### The Substance:

OXI252 (disodiumflammy) CAS  
number: 111-11-11xx

#### Step 1: Perform Classification

Class: Oxidizing Solid, Category 1

Class: Skin Corrosive, Category 1A

#### Step 2: Gather Labeling Information Pictograms:



**Signal Word:**

DANGER

#### Hazard Statements:

- May cause fire or explosion; strong oxidizer
- Causes severe skin burns and eye damage

#### Precautionary Statements:

##### Prevention:

- Keep away from heat.
- Keep away from clothing and other combustible materials.
- Take any precaution to avoid mixing with combustibles.
- Wear protective neoprene gloves, safety goggles and face shield with chin guard.
- Wear fire/flammable resistant clothing.
- Do not breathe dust or mists.
- Wash arms, hands and face thoroughly after handling.

##### Response:

- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
- IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Wash contaminated clothing before reuse.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.



- IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- Immediately call poison center.<sup>4</sup>

Specific Treatment:

Treat with doctor-prescribed burn cream.<sup>5</sup>

In case of fire:

Use water spray. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Storage:

Store locked up.



Disposal:

- Dispose of contents/container in accordance with local/regional/national/ international regulations.<sup>3</sup>

### Step 3: Create the Label

Putting together the above information on OXI252, a label might list the following information:

### Example 2A: OXI252 Label inner package label with OSHA pictograms

<p><b>OXI252</b> (disodiumflammy)</p>	
<p>CAS #: 111-11-11xx</p>	 
<p><b>Danger</b></p> <p>May cause fire or explosion; strong oxidizer Causes severe skin burns and eye damage</p>	
<p>Keep away from heat. Keep away from clothing and other combustible materials. Take any precaution to avoid mixing with combustibles. Wear protective neoprene gloves, safety goggles and face shield with chin guard. Wear fire/ flame resistant clothing. Do not breathe dust or mists. Wash arms, hands and face thoroughly after handling.</p>	
<p>Store locked up. Dispose of contents and container in accordance with local, state and federal regulations. <b>First aid:</b></p>	
<p>IF ON SKIN (or hair) or clothing<sup>6</sup>: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Wash contaminated clothing before reuse.</p>	
<p>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p>	
<p>IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p>	
<p>IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</p>	
<p>Immediately call poison center.</p>	
<p>Specific Treatment: Treat with doctor-prescribed burn cream. <b>Fire:</b></p>	
<p>In case of fire: Use water spray. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.</p>	
<p>Great Chemical Company, 55 Main Street, Anywhere, CT 064XX</p>	
<p>Telephone (888) 777-8888</p>	

### Example 2B: OXI252 Label meeting DOT requirements for shipping<sup>7</sup>

<sup>4</sup> In this example, the manufacturer determined that calling a poison control center is the most appropriate emergency medical advice.

<sup>5</sup> Not all SDSs will have direction for "specific treatment" on the label. This is only if the manufacturer specifically notes a certain treatment that needs to be used to treat a worker who has been exposed to this chemical.

<sup>6</sup> There are occasions where label preparers may combine statements on the label. In this case the similar statements were combined and the most stringent were listed. For example, the first-aid pre-

<sup>7</sup> DOT Labels must comply with the size requirements presented in 49 CFR 172.

OXI252

(disodiumflammy)  
CAS #: 111-11-11xx



**Danger**

May cause fire or explosion; strong oxidizer  
Causes severe skin burns and eye damage

Keep away from heat. Keep away from clothing and other combustible materials. Take any precaution to avoid mixing with combustibles. Wear protective neoprene gloves, safety goggles and face shield with chin guard. Wear fire/flammable resistant clothing. Do not breathe dust or mists. Wash arms, hands and face thoroughly after handling.

Store locked up. Dispose of contents and container in accordance with local, state and federal regulations. **First aid:**

IF ON SKIN (or hair) or clothing: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Wash contaminated clothing before reuse.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a doctor.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Immediately call poison center.

Specific Treatment: Treat with doctor-prescribed burn cream. **Fire:**

In case of fire: Use water spray. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Great Chemical Company, 55 Main Street, Anywhere, CT 064XX

Telephone (888) 777-8888

<b>Health Hazard</b>  <ul style="list-style-type: none"> <li>• Carcinogen</li> <li>• Mutagenicity</li> <li>• Reproductive Toxicity</li> <li>• Respiratory Sensitizer</li> <li>• Target Organ Toxicity</li> <li>• Aspiration Toxicity</li> </ul>	<b>Flame</b>  <ul style="list-style-type: none"> <li>• Flammables</li> <li>• Pyrophorics</li> <li>• Self-Heating</li> <li>• Emits Flammable Gas</li> <li>• Self-Reactives</li> <li>• Organic Peroxides</li> </ul>	<b>Exclamation Mark</b>  <ul style="list-style-type: none"> <li>• Irritant (skin and eye)</li> <li>• Skin Sensitizer</li> <li>• Acute Toxicity (harmful)</li> <li>• Narcotic Effects</li> <li>• Respiratory Tract Irritant</li> <li>• Hazardous to Ozone Layer (Non-Mandatory)</li> </ul>
<b>Gas Cylinder</b>  <ul style="list-style-type: none"> <li>• Gases Under Pressure</li> </ul>	<b>Corrosion</b>  <ul style="list-style-type: none"> <li>• Skin Corrosion/ Burns</li> <li>• Eye Damage</li> <li>• Corrosive to Metals</li> </ul>	<b>Exploding Bomb</b>  <ul style="list-style-type: none"> <li>• Explosives</li> <li>• Self-Reactives</li> <li>• Organic Peroxides</li> </ul>
<b>Flame Over Circle</b>  <ul style="list-style-type: none"> <li>• Oxidizers</li> </ul>	<b>Environment (Non-Mandatory)</b>  <ul style="list-style-type: none"> <li>• Aquatic Toxicity</li> </ul>	<b>Skull and Crossbones</b>  <ul style="list-style-type: none"> <li>• Acute Toxicity (fatal or toxic)</li> </ul>

cautionary statements were combined for exposure to skin, hair and clothing.

Disclaimer: This OSHA Brief provides a general overview of the label requirements in the Hazard Communication Standard (see 29 CFR 1910.1200(f) and Appendix C of 29 CFR 1910.1200). It does not alter or determine compliance responsibilities in the standard or the Occupational Safety and Health Act of 1970. Since interpretations and enforcement policy may change over time, the reader should consult current OSHA interpretations and decisions by the Occupational Safety and Health Review Commission and the courts for additional guidance on OSHA compliance requirements.

For more detailed information about labels and

Safety Data Sheets (SDSs) under the revised Hazard Communication Standard, please refer to refer to 29 CFR 1910.1200 - paragraphs (f) and (g), and Appendix C.

The revised Hazard Communication Standard and additional guidance materials are available on OSHA's Hazard Communication page, located at: [www.osha.gov/dsg/hazcom/index.html](http://www.osha.gov/dsg/hazcom/index.html).

This is one in a series of informational briefs highlighting OSHA programs, policies or standards. It does not impose any new compliance requirements. For a comprehensive list of compliance requirements of OSHA standards or regulations, refer to Title 29 of the Code of Federal Regulations. This information will be made available to sensory-impaired individuals upon request. The voice phone is (202) 693-1999; teletypewriter (TTY) number: (877) 889-5627.

**For assistance, contact us. We can help. It's confidential.**



U.S. Department of Labor  
**[www.osha.gov](http://www.osha.gov) (800) 321-OSHA (6742)**

DSG BR-3636 2/2013

# QUICK CARD

The substance: "NOMIXUP 7042012"

**To create an OSHA label per HazCom 2012:**

Step 1: Perform the classification in accordance with Appendix A: Health Hazards & Appendix B Physical Hazards of 29 CFR 1910.1200 - this is where you find the criteria for each hazard class and hazard category.

Class: Flammable Gas, Category 1

Class: Carcinogen, Category 1B

Class: Specific Target Organ Toxicity (Single Exposure), Category 3

Class: Substances and Mixtures Which, in Contact with Water, Emit Flammable Gases, Category 3

Step 2: Gather labeling information (Pictograms, Signal Word, and Hazard Statements) from Appendix C of 29 CFR 1910.1200 based on the chemical's hazard class and category. Step 3: Create the Label

Modify or NOMIXUP 7042012

## DANGER!

Hazard Statements: Extremely Flammable Gas

May Cause Cancer

May Cause Respiratory Irritation

In Contact with Water Releases Flammable Gas

Precautionary Statements: Keep away from heat/sparks/open flames/hot surfaces.-No Smoking

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Avoid breathing vapors and mists.

Wear protective gloves and eye protection.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

Call poison center/doctor if you feel unwell.

Leaking Gas Fire: Do not extinguish unless leak can be stopped safely.

Eliminate all ignition sources if safe to do so.

Store in tightly closed container in a well-ventilated place, locked up.

Use outdoors or use in a well-ventilated place.

Dispose of contents in accordance with local/regional/national regulations.

XYZ Chemical Company 123 Main St. Anywhere, NY, USA 1-800-000-1111

**To Create NFPA 704 label:**

Step 1: Collect information on hazards from applicable sections of SDS. Some SDSs may provide the NFPA diamond symbol with hazard rating numbers filled in already. Note: Do NOT use the hazard category numbers given in section 2 of HazCom 2012 compliant SDS on 704 label!

If the diamond is not provided on the SDS you can obtain the information under the following sections of the SDS. Note that additional information may be provided in other sections of the SDS.

- Health hazard information under Section 11
- Flammability information under Section 9
- Instability information under Section 10
- Special information under Section 9, 10, 11

Step 2: Obtain current edition copy of NFPA 704 or view on line at [www.nfpa.org/704](http://www.nfpa.org/704).

Compare the criteria on the SDS sections as shown above with the criteria shown in Tables 5.2 (Health), 6.2 (Flammability), 7.2 (Instability) and 8.2 (Special Hazards)

Step 3: Place numbers for the degree of hazard associated with the criteria obtained in Step 2

In the correct quadrant of NFPA 704 placard.

NFPA Label for NOMIXUP 7042012

4  
2 0  
W

[For more information:](#)

National Fire Protection Association  
[www.nfpa.org](http://www.nfpa.org) | 800.344.3555

U.S. Department of Labor  
[www.osha.gov](http://www.osha.gov) | 800.321.OSHA (6742)