

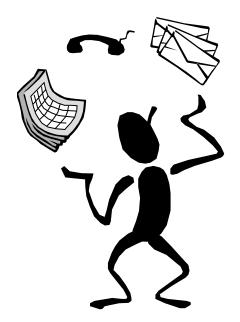
CARWASH BUILDING & EQUIPMENT MAINTENANCE TRAINING





STAYING ORGANIZED IS KEY!!

Our complete maintenance cleaning guide will help you organize your daily, weekly, monthly and yearly performance. You will also receive a monthly report and check list.





GENERAL SITE & BUILDING

The site and building should be maintained to insure that they do not interfere with wash performance and/or Customer safety. This means areas

- Should be clear of debris
- Walkways should be dry
- Inside of building should be clean

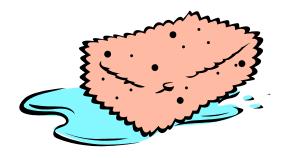


GENERAL SITE & BUILDING

Some specific areas to check are:

- Are walls clean?
- is floor clean?
- Is drain in building free for water to drain?

- Are there puddles of standing water in the wash?
- Are all maintenance tools (i.e. water hose) stored so they willing to interfere with wash equipment?
- Are building lights working correctly?
- Are all signs located correctly and readable by the customers?
- Has the air compressor been drained? (if required)
- Are there any air leaks that can be heard with the equipment off?
- Are all light bars for extra services items working properly?
- Are the entry mirrors clean and properly aligned?



GENERAL SITE & BUILDING

In cold climates the following points should also be monitored:

- Is the entrance and exit clear of ice and snow?
- Are all the heaters working properly?



A general building maintenance procedure is to clean the building once a day. This involves picking up any loose items from the area and using a water hose to spray down the walls and equipment. The hosing down should be started at the furthest from the drain then ending at the equipment nearest the drain.

EQUIPMENT & CHEMICAL ROOM

Hydraulic Power Unit:

- Check fluid daily
- Change oil yearly
- Change filter yearly



Chemical Injection System Panels:

- Check chemical levels
- Check all chemical lines for air pockets
- Check all air lines and fittings for leaks
- Check all water lines for leaks
- Check all water regulators for proper pressures
- Check all air regulators for proper pressures





EQUIPMENT & CHEMICAL ROOM

The entire system is activated by a computer signal activated by the customer when they enter there wash code number. The following is a sequence of events from entry code to exit. Each function is measured by the computer and should run for the duration of the car.

Here are the steps:

- 1. Customer enters code
- 2. Conveyor starts
- 3. Entrance door opens
- 4. Mitter curtain, rocker panel cloth and wraps are activated
- 5. Dollies come up to pull car through wash bay
- 6. Flooders arch is activated
- 7. Presoak arch is activated
- 8. Mitter nozzles apply detergent
- 9. Second detergent nozzle is activated and applied to wraps for cleaning and lubrication
- 10. Underbody manifold is activated
- 11. Triple Coat arches are activated
- 12. Rust inhibitor is activated
- 13. Fresh water rinse arch is activated
- 14. Spot free rinse or Drying agent applied through second rinse arch
- 15. Sealer wax applied when Triple Coat is applied
- 16. Blowers are activated
- 17. Exit doors open
- 18. Exit sign activated and customer is told to wait or exit



General Site & Building					
Item Description	Daily	Weekly	Monthly	Yearly	
House walls	X				
Hose floor	X				
Check Drains & Clean	X				General
Store tools and Equipment (hose)	X				Maintenance
Check in Bay light Fixtures	X				Schedule
Check Entrances & Exits Signs	X				
Drian Air Compressor		X			
Check equipment for air leaks	X				
Check for water leaks	X				
Check extra service light bars	X				
Check & Clean entrance Mirrors	X				
Check Heaters & Thermostat	X				

Auto Cashier/Entry System						
Item Description	Daily	Weekly	Monthly	Yearly		
Check Lights	x					
Check Viewing screen	x					
Check Keypad	x					
Check voice module	X					
Check intercom system	X					
Clean Auto Cashier		x				

Conveyor & Guide Rail					
Item Description	Daily	Weekly	Monthly	Yearly	
Check correlator	X				
Grease correlator bearings			x		General
Grease conveyors at entrance & exit		x			Maintenance
Clean Proximity switch		x			Schedule
Check rails for wear		x			
Check dollies for wear					
Grease dollies		x			
Check entry and exit dolly gates	x				
Grease idler roller shaft		x			
Grease roller up bearings		x			

Soaker - Flooder Arch						
Item Description	Daily	Weekly	Monthly	Yearly		
Check all hoses & Fittings for leaks	X					
Check for plugged nozzles	X					
Check for complete coverage	X					
Check water flow and direction	X					

Foaming Presoak Arch 1					
Item Description	Daily	Weekly	Monthly	Yearly	
Check for plugged nozzles	X				
Check for complete coverage	X				General
Check detergent levels	X				Maintenanc
Check for water and chemical leaks	X				
Check for air leaks	X				Schedule
Inspect foam generators	X				
Disable foam generators			Quarterly		

Rocker Panel/ Wheel Cleaner						
Item Description	Daily	Weekly	Monthly	Yearly		
Hose down cloth	X					
Check for damage	X					
Check for plugged nozzles	X					
Check water lines	X					
Check for oil leaks	X					
Inspect mounting bolts	X					
Check Spring tension	X					
Grease Bearings		X				

Friction Curtains					
Item Description	Daily	Weekly	Monthly	Yearly	
Hose down cloth	X				
Check for damage	X				
Check for plugged nozzles	X				
Check water lines	X				
Check for hydraulic oil leaks	X				G
Inspect mounting bolts	X				M
Check for loose clips	X				Sc
Grease Fittings on mitter pivot arms		X			
Check Oil Gear box			X		

Wraps						
Item Description	Daily	Weekly	Monthly	Yearly		
Hose down cloth	Х					
Check for damage and alignment	X					
Check for plugged nozzles	X					
Check Spray pattern	X					
Check soap levels for proper cleaning	X					
Check water lines	Х					
Check hydraulic oil leaks	Х					
Inspect mounting bolts	X					
Check for spring tension on swing arms	X					
Check for wear on cloth	Х					
Grease fittings on mitter pivot arms		X				
Grease fittings on swing arm pivots		X				
Grease bearings on Driveshaft	Х					

Clear Coat System				
Item Description	Daily	Weekly	Monthly	Yearly
Check for plugged nozzles	X			
Check product coverage	X			
Check for air leaks	X			
Check for chemical and water leaks	X			
Inspect foam generators	X			
Check all mounting hardware	Х			
Check for proper chemical levels	X			

General Maintenance Schedule

Rinse Drying Agent & Sealer Wax				
Item Description	Daily	Weekly	Monthly	Yearly
Check for plugged nozzles	X			
Check for proper chemical levels	X			
Check for leaks	X			
Inspect all check valves	X			

Blowers				
Item Description	Daily	Weekly	Monthly	Yearly
C heck all mounting brackets and bolts	Х			
Check top blower oscillation	Χ			
Grease all motor bearings				x
Grease top blower			x	
Oscillating bearings				

AUTO CASHIER / ENTRY SYSTEM

Daily Maintenance:

- Check the lights and viewing screen for proper lighting
- Check the keypad for operation. This can be done by entering a correct code.
- Insure the voice module is working when each number is pressed, and proper instruction are being communicated.

Weekly Maintenance:

Clean with glass cleaner (do not use abrasive cleansers).



CONVEYOR – CORRELATOR- GUIDE RAILS

Daily Maintenance:

- Inspect correlator and entry guide rails
- Check guide rail assembly for damage
- Check dollies for damage
- Inspect entry and exit dolly gates and rollers

Weekly Maintenance:

- Grease dollies weekly.
- Grease bearings at entrance and exit side conveyors.

Monthly:

Grease correlator bearings



SOAKER ARCH:

Daily Maintenance:

- Check all fittings for water leaks
- Check for plugged nozzles
- Check for complete coverage of all vehicles
- Check for direction of water flow



PRESOAKARCH:

Daily Maintenance:

- Check for plugged nozzles
- Check for complete coverage of all vehicles
- Check chemical foam levels for proper cleaning and lubrication
- Check for water leaks on all fittings and connections
- Check for air leaks on all fittings and connections
- Inspect foam generators for chemical deposit buildups

Quarterly Maintenance:

 Disassemble foam generators to clean insides, this is to remove any chemical buildup and flush foam generating mesh screen



Rocker Panel/Wheel Cleaner:

Daily Maintenance:

- Check cloth for damage
- Check for plugged nozzles
- Check water lines for leaks
- Check for oil leaks on hydraulic motor and hydraulic fittings
- Inspect mounting bolts for tightness
- Check spring tension on return arms.

Weekly Maintenance:

Grease swing arm bearings

Friction Curtains:

Daily Maintenance:

- Hose down cloth to clean and lubricate
- Check cloth for damage
- Check for plugged nozzles (4-8010)
- Check water lines for leaks
- Check for oil leaks on hydraulic motor and hydraulic fittings
- Inspect all frame mounting bolts for tightness
- Check for loose clips in mitter cloth

Bi-Weekly Maintenance:

Grease fittings in mitter pivot arms



WRAPS

Daily Maintenance:

- Hose down cloth to clean and lubricate
- Check for plugged nozzles
- Check for proper nozzle alignment
- Check cloth damage and proper alignment
- Check clutch assemblies for proper adjustment
- Check soap levels for proper cleaning and lubrication
- Check for hydraulic leaks in motors and hoses
- Inspect bearing for excessive wear
- Inspect shock absorbers for correct travel
- Check travel bumper stops for wear
- Check spring tension on swing arms

Weekly Maintenance:

- Grease bearings at top of washer shaft
- Grease bearings on motor hanger pivot
- Grease bearings on swing arms



Double Bond - Vision Clear - Clear Coat-Triple Coat System:



Daily Maintenance:

- Check for plugged nozzles
- Check for complete product coverage
- Check for air leaks
- Check for chemical and water leaks
- Inspect foam generators for clogged foaming-mesh
- Check all mounting hardware for loose fittings
- Check for proper chemical levels for customer appeal and protection

Rinse Arch-Drying Agent- Sealer:

Daily Maintenance:

- Check for plugged nozzles
- Check for proper chemical levels for proper rinsing, drying and protection
- Check for leaks
- Inspect all check valves





CAR WASH SAFETY & EQUIPMENT

SIMONIZ







SAFETY EQUIPMENT REQUIRED BY LAW TO BE ON SITE AT ALL CAR WASH LOCATIONS



Chemical Resistant Footwear



Chemical Resistant Gloves



Chemical Rainwear Suit



Chemical Safety Glasses



Chemical Safety Goggles



Chemical Safety Goggles

SAFETY EQUIPMENT REQUIRED BY LAW TO BE ON SITE AT ALL **CARWASH LOCATIONS**









Emergency Eye Wash Station



First Aid Kit

Car Wash Safety

Many car wash operators, when trying to comply with various rules and regulations that apply to their business, have difficulties because there is no single place to find all the proper regulations and as written they are difficult to read and understand. In this training, we will review all the different aspects of safety car wash operations. Since laws vary almost on a town to town basis, this can only be starting place. When a question arises, your local authorities are the best persons to ask. We at Simoniz[®] should be able to answer your questions regarding our products and the best way to use them.



Material Hazards

The first thing you should do is to determine the hazards of the detergents, waxes and any other chemicals you may have on site. Material Safety Data sheets that you receive from your supplier are a good source for this information. You can find all Material Safety Data Sheets at http://www.simonizusa.com/Business/MSDS/msds.asp.



Pay attention to anything marked flammable, combustible, or corrosive.



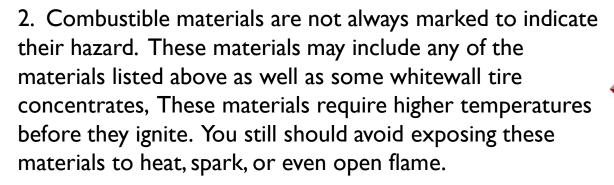






Material Hazards

I. Flammable materials are usually marked with a red flammable sticker and may include antifreeze detergents, solvent based cleaners, waxes, and perfumes. These materials can be ignited at normal temperatures by almost any source of heat or flame. Ignitable vapors from there materials can travel a considerable distance, so caution should be used when storing or handling these materials.







Material Hazards

3. Corrosive materials are another hazard found at carwashes. These materials are marked with a black and white "Corrosive" sticker. These materials can injure you by attacking any exposed body surface, causing burns or tissue damage which may not be readily apparent. These materials are incompatible with other items marked corrosive, so check Material Safety Data Sheets for specific incompatibilities.



4. The most difficult hazard to assess is the so called chronic hazard. These materials only cause damage if you are overexposed to them for a long time, sometimes many years. That is why it is important that you and your employees wear the recommended protective gear when using any cleaning products. The hazards listed above are those that put you and your employees at risk. Next let's discuss hazards to the environment.

Environmental Hazards

The Federal Environmental Protection Agency has restrictions on chemicals released into the environment. Your local sewer department also sets limits on the materials that go down your drains. Local limits are usually stricter than federal, so it is best to check with them to make sure you are in compliance. What follows a list of the major types of environmental hazards and their sources.

I. pH: This is a measurement of the acidity or alkalinity of your wastewater. The federal government says that a pH of less than 2 or greater that 12.5 is hazardous to the environment. Your local government probably has stricter standards. A typical car wash has a wastewater that is slightly alkaline but this can change dramatically if you have a leak or a spill from one of your containers. your town may require you to have a way to contacting leaks or spills of hazardous materials. Products with very high or very low pH include wheel brighteners, white

2. Fats, Oils, Grease or Petroleum Distillates: These materials are difficult to break down and can clog filters and drains in sewage treatment systems. They can also be ignitable or toxic to aquatic life. Products that contain there materials include solvent based degreasers, waxes, and soaps. Also be aware that rinse water from vehicle washing will contain these materials and if someone were to change their motor oil in your self-service bay your waste-water will contain a considerable amount.

Environmental Hazards

3. Metals: Metals found in waste water are regulated due to the fact that some of them are toxic and do not break down. Although cleaning products do not typically contain hazardous metals, small amounts may be washed off of cars and new car wash equipment, especially when washed by highly acidic or alkaline materials.

4. Phosphates: These are compounds containing phosphorus and are found in powdered and liquid detergents. They act as fertilizer in wastewater and cause the rapid growth of algae in treatment systems. Large amounts of algae interfere with the breakdown of materials in wastewater which is why some localities limit the use of phosphates. Simoniz has available low phosphate and zero phosphate products should you require them.



Physical Hazards

Physical hazards are those that can cause injury by falling on someone, things that can cause a fall, cut or other injury, or things that may burn or explode. Hazards such as reclaim pits, moving machinery or vehicles, wet slippery floors, or even loud blower motors all enter into this category. The federal OSHA regulations that apply to these hazards are simple. They basically state that if an injury can be prevented by wearing a particular protective device, then employer is required to provide it and an employee is required to wear it. This includes items such as safety goggles, rubber gloves, waterproof or steel toed boots, and hearing protection. Where corrosive materials are used, eyewashes and safety shower shall be provided. The guarding of chains and pulleys is also important. Pay special attention to conveyor chains and the pulleys on pump motors which can start up unexpectedly. Loose fitting clothing should not be worn near chains, pulleys or moving machinery or brushes.

Loud pump motors or blowers may require that you provide hearing protection for your employees. This is especially important for workers who spend a lot of time at the end of a conveyorized wash near the air dryers, which can be quire loud. Don't forget that hearing protection might simply mean forbidding employees from working in areas where loud machinery is running, such as pump rooms and next to blower motors.





Physical Hazards

When occasional maintenance is being performed on equipment the person doing the work should have a way to shut off power to the machinery in his work area to eliminate the risk of injury due to the moving parts or chemical sprays.

Drains or its should have a grates or covers adequate to prevent persons from falling into them. Unless you are doing work in them, covers should be in place at all times.

Fire safety is an important aspect of safe car wash operations. Flammable liquids, such as cleaning solvents, gasoline or windshield washing fluids are usually present. Smoking should be prohibited from area where flammable liquids are used or stored and customers or other unauthorized persons should be kept away. Make sure containers are kept closed at all times and paper rags soaked with these materials are kept in fireproof containers. Your local fire regulations may require that you have one or more extinguishers on the premises and that you and your employees know how to use them. It is best that you check with your local fire marshal to find out what is required.





Storage of Materials

Here are some basic rules to follow when storing cleaning materials;

- 1. Always store the material with the greatest flammability hazard furthest from the exit. In the event of an emergency, all persons should be moved from the area of greatest hazard to the area of least hazard. This should prevent personas from being trapped in the event of an emergency. Make sure enough space is provided for hoses and fire fighting equipment.
- 2. When storing materials, make sure that incompatible substances are not stored together. Some examples of incompatible materials are: ammonia and bleach, strong acids and strong alkalies, bleach and acids, and bleach and alcohols. If these materials come in contact with each other, they react and produce heat, flames or hazardous gases. Check your Material Safety Data Sheets for chemical incompatibilities.
- 3. Never store materials in unmarked containers. Make sure that every chemical container is marked so that its content can be identified in an emergency. Do not store chemicals in soda or juice containers.



Storage of Materials

- 4. Liquid materials should be kept from freezing and store away from areas subject to extreme changes in temperature. Powders should be kept in a dry place. Avoid storing materials outside where containers may be spilled or tampered with. Avoid storing drums where they may be struck by a moving vehicle.
- 5. Empty containers should be drained of all residues and rinsed thoroughly. Containers should be promptly reused or recycled. Keep all containers, whether empty or full, away from children. Do not expose empty containers to sources of heat or flame.
- 6. In general, try to store materials in a cool dry place protected from the elements. Make sure all containers are labeled and labels remain legible. Keep storage area well lit and accessible to fire and emergency personnel.



Emergency Response

In the previous pages, we have discussed some emergency situations. How do you know if you have an emergency? Here is a basic explanation of emergency situations as they exist at a car wash.

You have an emergency if one of the following exist;

FIRE: A fire where chemicals are involved is nearly always an emergency.

INJURY: When someone is injured due to chemical exposure, unless you know the exact cause consider the event an emergency. Incompatible materials may be reacting, or hazardous materials may be leaking from a container. If someone is unconscious or incapacitated, it is always an emergency.

LEAKS OR SPILLS: When materials are spilled or leaking, an emergency exist when you loose control. If you cannot secure the area, an emergency exists. If you cannot determine what is leaking, an emergency exists. If you cannot safely stop the leak. An emergency exists. If you are unable to safely clean up and dispose of the spilled material, an emergency exists.



Emergency Response

Before an emergency, you may want to do some or all of the following ;

Notify the local fire department of the material on the premises, and their location. The may want copies of your Material Safety Data Sheets for the materials you use, since they provide helpful information for fire fighters. It is also a good idea to provide MSD sheets to your local emergency room. Some materials you use may require special emergency treatment that your emergency room is unfamiliar with, or they may want to have materials ready in advance. Post emergency phone numbers near the telephone at your wash. This will save valuable time in an emergency. Locate the nearest available phone that you can use should your own phone be unavailable. Make sure all of your employees are aware of what to do in an emergency. Otherwise everything depends on you and if your are injured or incapacitated valuable time may be lost and additional persons may be injured.

During an emergency you may need additional information about your products. During regular business hours someone here can answer you chemical questions. In addition, our products are listed with Chem-Tel Inc. who can provide you with 24 hour information on all hazardous products. Their number is 1-800-255-3924. One more thing to consider before an emergency occurs is the size of your containers. A leak or spill from a 5 gall pail is a lot less serious than the same substance leaking from a 55 gallon drum. This becomes especially important if your wash is unattended for any length of time. In order to reduce he rest of an emergency and reduce costly and time consuming cleanups, it is a good idea to purchase a store corrosive, flammable, or strongly colored products in smaller containers.





EQUIPMENT MAINTENANCE

Follow these guidelines when maintaining or repairing machinery and electrical equipment;

- 1. Make sure power is shut off to the equipment you are working on and any other equipment in your work area. These should be no possibility of equipment starting up while you are working on it. It may be necessary to lock out he main switch, disconnect the wiring, or posting someone at the main switch to make sure you are safe. Special attention should be paid when you are working out of sight of power source.
- 2. Ventilate enclosed areas; Do not enter any pit, tank, or other enclosed or below an area unless you know that it is adequately ventilated. These areas may contain hazardous gases or vapors that are not readily detectable. When working in an enclosed area, make sure you have a constant supply of fresh air. Do not enter enclosed areas while working alone.
- 3. Check the area for physical and chemical hazards. Make sure there is no equipment that may fall and cause injuries. Make sure that any stairways, holes, and any moving machinery are guarded to prevent injury. Any chemical containers in the area should be checked. Special attention should be paid to any container marked "flammable, combustible, or corrosive." Do not work near containers if their contents are unknown. All hazardous materials should be moved to a safe place before work begins.

EQUIPMENT MAINTENANCE

- 4. Wear safety equipment. Most accidents and injuries are preventable if the proper safety equipment is worn. The short time it takes to put on your gloves and goggles is worth it when you consider the time you could lose due to injury. Make sure you equipment is in good condition and repair or replace it as necessary.
- 5. Avoid working alone. When you run you own car wash business, it is often tempting to maintain your equipment late at night or on rainy days to avoid any customers inconvenience or lost business. When you do so, make sure you have someone there with you in case you are injured and incapacitated. A small injury can become a large one if you are unable to get help, especially with the hazards found at the average car wash. Imagine being caught in a brush overnight or having something splash in your eye and being unable to to see .



Handling Leaks and Spills

In the vehicle washing industry, we work with chemicals every day. Drums, pails, and various other containers are routinely handed by you and your employees. Because these materials are normally in containers and are not in contact with incompatible materials we don't always appreciate how dangerous some chemicals can be when they leak or are spilled. Follow these procedures when materials are spilled or leaked.

Powdered Materials:

Under normal conditions, spilled or leaked powders will not pose an immediate hazard. Watch out for powders leaking into the liquid tanks or onto wet floors. Reactions may occur that create large amount of heat or dangerous gases. Spilled materials will make floors slippery. Large amounts of spilled powders entering the storm drain could contaminate local waters. Clean up spilled powders immediately, being sure that you wear the necessary protective clothing while doing so. See your Material Safety Data Sheets for additional safety information.



Handling Leaks and Spills

Liquid Materials:



The majority of leaks and spills you will encounter will be those of liquid materials. When ordering liquid products, give some thought to the size of your containers. Remember, a leak from a five gallon container will be much easier to control and clean up then a leak from a fifty-five gallon drum. This becomes very important if your wash is self-service and you are not there every day. Flammables and Corrosives are less hazardous when stored in smaller containers. Should it become necessary to move these containers, smaller ones are easier to move.

Follow these procedures when a liquid is spilled or is leaking;

I. Secure the area of the spill. Warn everyone in the area that a spill has occurred. Keep vehicles and persons away from the area.

2. Determine the identity of the spilled material. From a safe distance, materials usually can be identified by the label, the size and type of container, location of the container, or the physical characteristics of the spilled material. If you cannot identify the material, do not risk injury by exposure to unknown materials. Leave this job to properly equipped personnel.

3. Eliminate the source of the leak or spill. Once the identity of the materials has been determined, properly equipped persons may close valves, plug leaks, or do whatever else may be necessary to stop the spill or leak.

4. Clean up the spilled material. It will be to your advantage to reuse or recycle as much of this material as you can. Before you dispose of any spilled material, check with you local authorities regarding your local rules and regulations for waste disposal.

Detergent Mixing

Since powdered detergent offer economy and in some cases better performance, many customers buy powders and mix their own solutions. Here are some safe procedures to follow while mixing solutions yourself.

Follow these procedures when mixing solutions yourself;

I. Wear proper protective equipment. The Material Safety Data Sheet provided with each product will tell you what equipment you should have to protect yourself from injury. Always check before you begin.

2. Always add powders to liquids, Water poured onto powdered detergents may generate heat or dangerous vapors. In some cases the reaction may actually boil the water. Fill the mixing container with as much water as you can to minimize the amount the heat generated. Remember to allow some space to the detergents you are adding.

3. Avoid using water hotter than necessary. The products you are mixing should mix with room temperature water. Hot water will increase the hazards associated with mixing. And don't forget, heating water costs money, and that cuts into your profits.

4. Do not leave chemicals in unmarked containers. Make sure you rinse out any mixing tool you may have used, and make sure the containers that you have filled are properly marked. Do not use food or juice containers for mixing chemicals.

5. Leave chemistry to chemists, do not experiment! Use the recommended dilutions for the product you are using. To strong of a solution will be unstable and may separate. Adding other chemicals or detergents to your solution may have undesirable side effects or produce hazardous reactions. If you are not getting the desired results with the product you are using, contact your Simoniz representative. We have the right product for your cleaning problems.



This article is being offered as a public service of Simoniz and is based on information we believe to be reliable and accurate. We can make no warranty regarding the accuracy of the information contained in this article. Always check with your local authorities when you have a specific question regarding safety and health. We hope that this brief review of general car wash safety procedures is of some help to your and your employees. While we cannot possibly cover every aspect of your particular operation, this should get you started towards a safety program of your own.



CAR WASH SAFETY CLASS COMPLETED BY:

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