

LIVING WITH CHEMICALS SAFELY

All about Chemical Safety

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Cleaning and sanitizing chemicals are a valuable tool in your daily plant sanitation program. Without the use and application of proper cleaning chemicals no production facility can stay in business. None of us want our employer's name in the newspaper for the wrong reason. A successful chemical sanitation program is a key component in your job security.

The chemicals you use in your sanitation program are in many ways similar to household products in your own home. You have dangerous products under the sink, in the laundry room, and in the garage. Mix the toilet bowl cleaner with the laundry bleach and you release chlorine gas which can kill you. In your plant mix the chlorinated CIP cleaner with your acid sanitizer and you have chlorine gas, which can kill. The difference between your home and the processing plant is in the concentration and volume. At home you have small quart containers, while at work you have 55 gallon drums and bulk storage tanks. This dramatically increases the risk of serious injury and makes safety training critical.

Chemicals can hurt people working with and around them when not used properly. Learning how to deal with chemicals in your working environment can be the difference between your personal safety and serious injury, even death. After 28 years in the chemical sanitation industry I could tell you stories about some of the accidents I have heard about or even witnessed, but instead I would like to focus on how to ensure you can live safely with chemicals.



A comprehensive chemical safety training program is your first line of defense for employees. Key components of this training should include: 1) Reading and understanding the label; 2) Basic chemical handling, distributing, and usage procedures; 3) Use of personal protection equipment; 4) First aid recommendations and emergency procedures; 5) Proper chemical storage and disposal of containers; 6) How to read and understand the Material Safety Data Sheet (MSDS); 7) Plants with bulk storage also need specific training on the general requirements for bulk handling.

First and foremost, read and understand the label. The label tells you information you need to know for your safety. It will tell you the name of the chemical, its use precautions, and critical first aid procedures.

All employees should have safety training with the sanitation crew having detailed training on the basic handling, distribution and use of each chemical. There are many general recommendations to cover like do not become a chemist by mixing up your own "super duper cleaner". Distribute cleaners only in closed marked containers and use only as directed on label and in documented procedures

One of the most critical issues to living with chemicals safely is always using the proper personal protective equipment (PPE). This includes eye protection of safety goggles or full face shield, rubber gloves or other chemical resistant hand protection as well as appropriate body, feet and head protection.

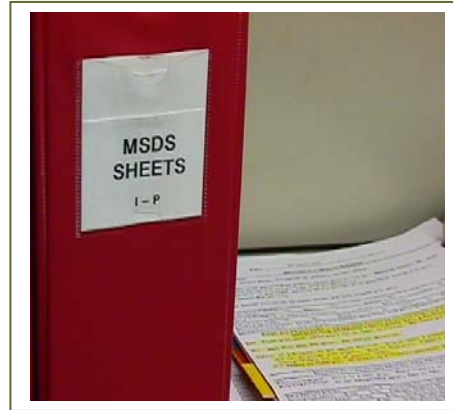


The use of proper personal protection equipment makes for a safe working environment.

Every plant must have a working plan for chemical emergencies. Learn all the plant emergency procedures and follow the directions. Emergency phone numbers for key personnel should be readily available and posted throughout the plant. First aid procedures for eye injury, skin contact, inhalation and ingestion are on the labels, but remember in any first aid emergency call for medical help as soon as possible.

Chemicals should be stored in a cool, dry area away from food product containers. Store your chemicals in a neat, organized fashion with all labels turned so they can be easily read. If possible, a chemical storage cage should be used to eliminate access and misuse of products by untrained personnel.

The MSDS provides critical information needed to handle chemical substances in a safe and healthful manner. The MSDS includes information on the product's composition, health effects, emergency and first aid procedures, proper handling techniques,



The Material Safety Data Sheet Must Be Readily Available For All Employees

reactivity and physical data, and procedures to be followed in case of a spill or fire.

Bulk chemicals usage and storage carries additional responsibilities and training requirements. Whenever bulk chemicals are handled and especially during the loading and unloading the danger of exposure is amplified. The product is being pumped under pressure so the protection of personnel is critical. Only properly trained and designated individuals should be responsible for monitoring all physical hookups and the complete unloading of bulk chemicals.

Training must be a continuous and company wide commitment and no employee should ever handle chemicals without proper training. With proper training and use of personal protection equipment we can all live safely with chemicals.



Bulk chemicals greatly increase the possibility of a major incident. This tanker was shipping bulk chlorinated CIP cleaner