

Safe Handling, Transport and Storage of Swimming Pool Chemicals

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Know the product. Know the label.

The most important information to know when handling, transporting or storing chemicals is to clearly understand the manufacturer's label and the Environmental Protection Agency (EPA) hazards.

The EPA is responsible for regulating certain chemical labeling. These are chemicals, under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) which are classified as "pesticides". In swimming pool water, algae, bacteria, viruses, fungi, mold, and other microorganisms are classified as pests. Any chemical that claims to prevent, destroy, or mitigate pests in a swimming pool, requires an EPA registration to be sold and used. Chlorine sanitizers and algaecides are two examples of products that fall under the authority of the EPA under the authority of the FIFRA labeling requirement.

EPA has developed hazard warnings for these types of chemicals to define how toxic or unsafe a particular product can be to users.

There are three main hazard warnings that will appear on labels as follows: (Art Icons will be added)

DANGER

This is the highest hazard wording on labels. Danger indicates that the product is highly toxic, corrosive and can cause severe injury or death.

WARNING

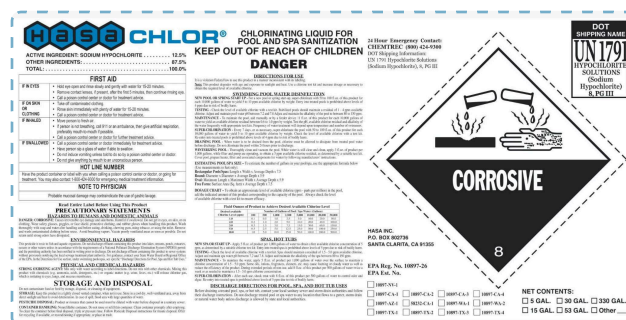
Moderately toxic: can cause moderate eye or skin irritation.

CAUTION

Slightly toxic or causes slight eye/skin irritation.

An example of an EPA registered label is shown below:

For more detailed information on these hazard warnings, refer to the U.S. Environmental Protection Agency (EPA) website at epa.gov.



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Safe Handling of Pool Chemicals



Before handling any chemical, all label directions and the SDS should be clearly understood. Manufacturer directions should be followed especially in relation to safety and personal protective equipment. Avoiding contact with skin, eyes, and breathing warnings should be followed. This could include the use of protective gloves, goggles, breathing devices, and protective clothing.

Chlorine sanitizers should be applied to the swimming pool water carefully, to avoid splash back. Measuring your chlorine into a measuring cup is good practice. Powders and granular should be applied carefully to prevent blowback into the face, eyes or skin. Premixing and dissolving chemicals in a bucket prior to pouring is a safe approach.

Acids should be applied so as to avoid fumes and splash back on skin or in the eyes. Directions for applying ancillary treatment of chemicals should be followed. Wearing proper personal protective equipment (PPE), like goggles, gloves, respirator as well as wearing long sleeve clothing and closed toes shoes are the professional practice.

When handling an unfamiliar chemical product, take the time to understand the hazard warning and precautionary statement before using it.

NEVER MIX DIFFERING CHEMICALS PHYSICALLY TOGETHER IN A BUCKET OR DIRECTLY INTO THE SKIMMER.

EACH CHEMICAL SHOULD HAVE A DEDICATED MEASURING TOOL (SCOOP, CUP, ETC.) TO AVOID ACCIDENTAL MIXING.

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Transporting Pool Chemicals



Transporting pool chemicals in limited quantities for pool service falls under the US Mode of Transport (MOT). Unlike commercial transport, the US MOT allows a certain amount of chemicals to be transported without commercial requirements. The US MOT requirements are as follows:

When transporting liquid chlorine or acid, no single package (plastic crate, box, or drum) may contain more than eight gallons.

Example

A 15-gallon or 50-gallon drum of liquid chlorine does not fall under the MOT exceptions and would require hazardous chemical placards, emergency papers, and manifest paperwork. Anyone transporting larger quantities than allowed by MOT would also need to prove formal training and have records of training on hand.

For dry solid chemicals such as chlorine tablets or granular/powdered shock, the limit is no more than 66 lbs. per package.

Example

Any container of chlorine tablets or shock over 66 lbs. in the USA is considered hazmat and requires placarding, emergency and manifest paperwork; formal training records are required.

The total amount in weight of hazardous materials that can be transported under the MOT allowance is no more than 440 lbs. This includes any additional gasoline, fire extinguishers, lithium batteries, or paint. In addition to the pool chemicals that are classified as hazardous, any of these additional chemicals shall be considered as part of the total weight.

For more information on transporting hazardous chemicals under the MOT program, see [PHMSA's Mode of Transportation brochure](#).

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Safely Loading a Service Vehicle



Vehicles used to service swimming pools that are daily carrying hazardous chemicals need to be properly organized in order to prevent chemical reactions, damage to the vehicle, or harm to the driver or others. Here are some best practice recommendations:

- Make sure all hazardous chemicals remain in the original, secure packaging with correct labels. Do not put hazardous chemicals into used or unmarked containers.
- Containers such as 5-gal carboys that are refilled must be properly labeled.
- Keep all dry solid forms of hazardous chemicals in uncompromised containers with lids secured.
- Keep all dry chemicals separate from liquids.
- Keep chlorine and acid separated from each other.
- Pack all liquids within a secondary container capable of absorbing or containing any spillage.
- Place non-hazardous chemicals such as soda ash, sodium bicarbonate, and diatomaceous earth (DE) between differing hazardous chemicals, or between liquid and dry chemicals, to act as a buffer in case of a spill.
- A bed liner with plastic or wooden dividers to keep products organized, separate and stable is highly recommended.

For a practical application guide, watch [Orenda's truck organization video](#), and visit our YouTube channel for more.



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