CLOUDY SWIMMING POOLS

Confronted with a cloudy pool, one is usually confused, not knowing where to start. The reason for this is that there are many different reasons or causes for a cloudy pool. This guide examines these causes and shows how to approach this problem systematically:

Filtration and Circulation

Check the circulation and filtration as to turnover and whether the filter needs backwashing, is backwashed too much, or needs cleaning

Water Balance

High total alkalinity (T.A.) calcium hardness (C.H.) and pH will precipitate scale and cloudy water. Get your water back in balance. Adjust T.A. first; with the exception being high C.H., requiring dilution to being C.H. into balance; then adjust the T.A. and finally the pH.

If your make-up water is hard and you are adding hypochlorite, there is a danger of your pool water turning cloudy white. The sodium hypochlorite causes pH to climb, and at high pH levels calcium from the make-up water precipitates as clouds of calcium carbonate. If calcium hypochlorite is used, clouds of white precipitates build up even faster. If you keep your pH below 7.6, the formation of calcium carbonate is reduced. (Get the C.H. in balance). Otherwise, determine if the pool water is 'balanced', using the Langelier index.

A pH range of 7.2 – 7.8 should be carefully maintained. For most waters, the pH should be held closer to the upper limit. If it is, eye and skin irritation will be avoided, water will not turn green or feel slippery, pool tiles and fixtures will not become discoloured or corroded, and the slight alkalinity will aid alum in the coagulation of colour-causing particles.

At pH values above 7.8, it is necessary to maintain higher chlorine residual then between 7.2 and 7.8, to do the same germ-killing job. This greater chlorine requirement is one of the reasons for setting the upper pH limit at 7.8. Conversely, in too acid water, below pH 7, chlorine dissipates rapidly and may cause objectionable odours.

Algae (Greenish Water)

Incipient algae which have not quite bloomed will cause a pool to cloud. Shock with 30 ppm chlorine.

Signs to look for:

Slime on pool sides and bottom or greenish water indicates that chlorine, or increased chlorine dosage, is needed. Bacteria and other harmful organisms, always present in water to some degree, cannot be seen.

Heavy Use

More organics in the pool will exceed the load of normal operating procedures. Increase chlorine levels, or shock pool.

Fine Suspended Solids

Use flocculation (alum) or cationic polymer to coagulate these particles into filterable size.

Adding Alum:

To get a good floc, your water should be slightly alkaline. If the water is too acid, the alum will not form a floc. Instead, it will go right through the filter with the colour particles it was intended to trap. It will flocculate in the pool and your pool water will have a milky blue colour.