



## WHITE PAPER

The economy is down and the only way to fight back is to focus on our strengths: quality, frugality, and working smart. This applies to every tool at your disposal, and among your most important tools are your hands.

Now there's a new technology that helps your hands maintain their peak condition.

Soap. Sounds simple, yet soap represents a technology that is older than the wheel. Until the 1800's, soap was made naturally by combining oil and vegetable fats with potash. Then came the industrial chemists, allowing soap to be mass produced more cheaply than before. This also meant removing some of the ingredients that slowed the process down—ingredients that your hands need to stay healthy.

The 1890's saw the invention of putting pumice into soap, and a few years later came the formula for liquid soaps. As always, manufacturers worked at reducing the costs further.

At first these cheaper soaps worked well. Machinists went to work for 3 to 5 hours, then broke for lunch. They sat and ate their white bread sandwiches with dirty hands. They worked for another 3 to 5 hours, washed up with abrasive soap, and went home.

Today, there are a lot fewer machinists. Those that remain have a far different workday. They arrive early and set up machines. Then they have computer and paperwork, tweak programs, followed by some more hands-on work involving skin-irritating metalworking fluids.

Customers may come in and need attention, calls are made, and a trainee is set up to do something simple. It's finally lunch time.

Every pass from shop to office, from parts to customer, means washing hands yet again. Another pass under the water, another exposure to soap made using industrial technology and pumice.

What does this do to the hands? The effects upon skin are dramatic. It's stripped of all protective oils by the chemicals, while the abrasives scour the skin surface removing a small part of the outer layer each time you wash. Of course, much of the dirt is also removed, but at what cost to your health?

What happens when you wash again and again? Hands become raw, drying out easily, and cracks appear. In extreme cases your hands may begin to bleed, especially near the cuticle. These are the typical symptoms of eczema eczema and dermatitis.

The causes of eczema and dermatitis in industry are many, but the conclusions made by experts like the CDC, ASTM, or NIOSH are the same—your hands aren't healthy.

This combination of changes in how we work, what we work with, and how frequently we wash, are all leading to the same thing—increasing hand problems.

There is a way to fight back. A new kind of soap exists that removes dirt and oil without abrasives and which has increased hydrating abilities—Uncle Earl's Hand-Healing Soap, developed for machinists by Zebra.

Skeptical? Then put it to the test. Right away you can feel a difference in the lather, and even the way your skin feels after the first wash. Keeping the lotion layer on your skin after washing uses even less water, although it takes about a minute for the lotion to be fully absorbed.

For one of the most important tools in your shop—your hands, think about a small change that can add up to big health benefits for yourself and your employees.