



Is An Exploding Torso Better than A Dissolving Thumb? Reducing the Risks

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It's after December 1, 2013. So, as OSHA's required, you've now trained your employees on the new chemical labeling pictograms. You've even begun to see products arriving with the pictograms. And vendors have begun sending you the new safety data sheets. That makes this a great time to evaluate the products you use.

Because these revisions classify and categorize chemicals according to their hazards, it's easier than it used to be to compare hazards. Section 2 of the new safety data sheets should list the major hazards. Many hazards are broken down into hazard categories, with hazard category 1 always being the highest danger.

Start by looking for the signal word on the label or safety data sheet. In order of risk, that could be DANGER, WARNING, or no signal word at all. DANGER is used for products that could cause serious harm. But you won't know if the harm is from fire, corrosive burns, or cancer until you check the pictogram and read the hazard statements. WARNING is for less serious hazards. If there's no signal word at all, and no pictogram, the product isn't likely to cause harm.



Are you using any with the skull and crossbones pictogram? Those are acutely toxic products – it doesn't take a big dose to kill. Read the label: if the hazard statement says "fatal if swallowed" or "fatal if inhaled," the product is hazard category 1, in the same category as cyanide. I'd try to eliminate these products. The good part: these are rarely seen in automotive repair.



Chances are pretty good that your brake cleaners, carb cleaners, degreasers, and paints will get this pictogram (we call it the exploding torso). It's used for those chemicals that can cause serious harm, but the harm usually isn't seen right away. These could be linked to asthma, or cancer, or damage to the nervous system. While we'd like to see your use of these reduced, it's hard to avoid them entirely. But manufacturers are beginning to respond to the challenge. Some shops have been able to change to water-based partwashers. And some folks have been able to use detergent cleaners for brakes instead of the solvents.



Take a look at the corrosives you use (look for the dissolving thumb pictogram). Does the label say it causes serious eye damage? That means that it could cause blindness if splashed in the eye. Battery acid will get this pictogram. And as long as cars use lead-acid batteries, it's difficult to avoid the acid. There's less of a risk with sealed batteries, of course, as they don't need to have acid added.

You'll see a combination of both the exploding torso and the dissolving thumb on acid wheel cleaner. This cleaner, which contains hydrofluoric acid (fluoride), is particularly nasty stuff. It can cause very severe burns that may not be felt immediately. Even small amounts splashed on the skin can penetrate through the skin and cause toxic effects. And ordinary soap and water doesn't do a good job removing the fluoride. While the first step should be washing off the cleaner, that needs to be followed by treatment with a calcium gluconate gel.

You can buy calcium gluconate, sold as a nutritional supplement, and keep that and K-Y Jelly on hand, so you can mix up the calcium gluconate as needed if someone is splashed. You can also buy Calgonate®, a premixed gel, for about \$120 a tube. But wouldn't it be easier and less risky to change to a less hazardous product?



What about those products labeled with an exclamation point? Those can be harmful, but if the only pictogram on the label is the exclamation point, they aren't likely to cause lasting harm. This pictogram is used for irritants, chemicals that can cause allergic skin reactions or that can cause drowsiness or dizziness, and hazards to the ozone layer. You'll probably see it along with the exploding torso on solvent containers, such as brake cleaner or spray paints. A lot of adhesives are likely to get it, because of the potential for allergic skin reactions. If you can, opt for chemicals with only this pictogram, as they are less likely to cause harm than those with the exploding torso, dissolving thumb, or skull and crossbones.

Because this new system of chemical classification and labeling attempts to standardize how hazards are communicated, it should be easier for you to evaluate the products you use. Are less hazardous ones as effective? Often, yes. Manufacturers have been pressured to come up with products that are less damaging to the environment, less costly to dispose of, and safer to use. Look at how good waterborne paints have become. While it's unlikely you can entirely get away from the higher hazard products, you can make a start.

Note: There may be money available to help you change to less hazardous products. In addition to Minnesota OSHA grants to improve employee safety, the MPCA has zero or low interest loans available for projects that will "protect public health, the environment, and the economic viability of businesses."

If you have questions about evaluating the products you use, labeling, safety data sheets, OSHA grants, or other safety or environmental issues, contact CHESS at 651-481-9787; toll free at 877-482-4377, or carkey@chess-safety.com. CHESS specializes in helping small to medium sized business with occupational health and safety issues. We have been providing services to the automotive industry for almost 20 years.

This article is intended to provide general information (not advice) about current safety issues. To discuss your specific concerns and how CHESS may help, please contact CHESS at 651-481-9787 or chess@schess-safety.com.

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