

Update for Nail Technicians — MMA Monomer



Methyl methacrylate Monomers. In the infancy of the professional nail industry, methyl methacrylate (MMA) was a commonly used ingredient in artificial nail products. These products were often referred to as “dental acrylics” or “porcelain nails.” By the end of the '70s, the FDA had received so many complaints related to the use of MMA that it was forced to take action against several manufacturers of these products.

MMA-related complaints ranged from skin allergy to permanent loss of the nail plate. It also can cause a permanent loss of sensation in the fingertips. As the problem became more serious, the FDA warned manufacturers that further use of MMA in nail enhancement products was inappropriate. Products containing MMA monomer were considered too dangerous for use in the beauty industry. In a recent interview, Allen R. Halper of the FDA's Office of Cosmetics and Colors stated the FDA considers MMA “to be a poisonous and deleterious substance” and may take regulatory action against nail products containing methyl

methacrylate monomer and may take legal action against those involved.

Methyl Methacrylate Polymers. Nail technicians who are aware of the dangers of MMA are often confused when they discover that some acrylic powders contain this ingredient. The problems described above do not apply to the use of MMA polymers. In the fully polymerized and solid form, this substance is considered safe. Fully polymerized MMA will not cause adverse skin reactions or other problems associated with the liquid monomer. When MMA is converted into a polymer it is called “poly methyl methacrylate” or PMMA. In the polymer form, PMMA is chemically identical to Plexiglas or Lucite and is considered safe for use on natural nails.

The NMC's Recommendation.

The NMC wants you to be informed about the potential dangers related to the use of MMA. We agree with the FDA that the use of nail enhancement products containing MMA is unsafe and unwise. Anyone who manufactures, sells, or distributes these potentially dangerous substances is breaking the law and endangering your health. Not only are they showing a disrespect for you and your clients, they are endangering the entire nail profession. Many state boards of cosmetology, which regulate and license nail technicians have passed strict regulations forbidding the use of these products.

Serious adverse skin reactions and permanent nail deformities are only part of the risks of using MMA. Long-term use of MMA may lead to permanent damage to the respiratory system. Those who use these products often wear dust masks hoping to obtain some protection. Although these masks are a great way to lower exposure to dusts and filings, they provide absolutely no protection from MMA vapors. Also, MMA creates artificial nails that are too rigid for the natural nail plate. MMA artificial nails resist breaking if accidentally caught or jammed. This often leads to painful breakage of the nail plate

near the cuticle which may result in severe infections. Nail technicians may be found legally liable if they knowingly use products containing MMA. They may lose their professional licenses, and/or be sued by injured clients!

How Can I Tell?

Since MMA is prohibited, you are unlikely to find it on the ingredient label. Still, it is usually not difficult to tell if a product contains MMA. Here are three simple things to watch for:

1. Unusually strong or strange odor which doesn't smell like other acrylic liquids.
2. Artificial nails are extremely hard and very difficult to file, even with coarse abrasives.
3. Artificial nails that will not soak off in solvents designed to remove acrylics.

The last sign is the most important indicator: Nail technicians who come across artificial nails made with MMA containing ingredients are usually surprised with how difficult it is to remove the product. The only way to remove these products is by filing with a very coarse abrasive, which usually results in further damage to the client's nail plates and nail beds.

Closing Thoughts

The NMC fully supports the FDA's position and recommends against nail technicians using products that contain MMA. We believe that the significant danger to both nail technicians and clients makes the use of MMA both unwise and unethical. In our opinion, the health risks and public relations problems created by the illegal use of MMA seriously threaten the entire professional nail industry.

If you think that these products are being used, we recommend that you report your suspicions to your local state cosmetology board or other regulatory agency. If you know of anyone engaged in selling or distributing products containing MMA, please report this information to the NMC at (312) 245-1595. ■