

MMA

MMA. Just whispering it makes you want to take a shower as soon as the phrase passes the lips. But what exactly is it and what the hell can I do about it?

What it is

MMA (Methyl MethAcrylate) is a monomer used in some nail enhancement applications that has stirred up tons of controversy over the past few years in the US and is quickly becoming a problem in International markets.

As early as the 1970's the FDA expressed that MMA monomer is "a poisonous and deleterious substance and should not be used in liquid acrylic monomer for nail enhancement products" as it is an extremely high sensitizer and likely allergen that can cause severe allergic reactions through minor skin exposure. The FDA still holds strong on its stance for the safety of this product.

Aside from the "Use it and you will spontaneously combust" warning from the FDA, there are even more grave reasons for avoiding MMA applications.

MMA is extremely hard and as such having MMA on your nails can cause very serious problems. When enough force is applied to an MMA enhancement to break it, the result is usually enough force to tear the natural nail plate apart. This can lead to permanent nail plate damage if the tearing is located around or near the matrix or lunula. It can also result in an increased risk of serious infections due to the tearing and exposure of the nail bed or surrounding tissue.

Due to the severe hardness of MMA, the only way to file is through excessive drilling. Most techs irresponsible enough to use MMA are far too irresponsible to use an electric file. Techs that use MMA could care less about the health of the natural nail plate and as a consequence, the client suffers. Much of the damage associated through the use of MMA comes from severe damage attempting to apply and maintain the indestructible enhancements with a drill. The extra amount of drilling required to maintain these enhancements leads to situations where technicians burn the nail bed, over-thin the plate, and even drill through the natural nail plate.

MMA is so dense, that it is even more difficult to soak off than gel. Soaking off is possible (as with gel) but is very unrealistic as the time it takes for the solvent to penetrate is substantially longer than with an L&P or wrap system.

The result is usually seen in even more nail plate damage as the client or technician becomes bored of waiting and picks, nips, or rips the product off instead.

"But it just sticks so good and all"... Um... right...

MMA Does not bond very well to the natural nail plate. The only way it can adhere to the nail is through mechanical adhesion, which requires massive amounts of damage to the natural nail plate (through severe 'etching'). The upper most layers of the plate have to be removed to expose the looser knit center of the plate. This gives the MMA something 'substantial' to bond to. If the nail separates or gets broken, this 'etching' process is usually repeated. Before long, the natural nail plates become thin sheets of keratin that tear easily as well as offer no protection from MMA seeping through to the nail bed.

MMA has the lowest level of attraction to keratin than any product used to enhance natural nails.

"ok.. BUT ITS SOOOOOO CHEAP N STUFF!"

MMA is sold through back doors and out of vans, just as one would buy stolen goods or drugs. The suppliers will usually get hold of massive quantities from dental suppliers to decant and re-distribute to known customers. Since MMA is completely undeveloped for the nail industry, and has no legal distribution, manufacturing, or education channels, it is usually at a much lower cost (just like stolen stereos are much cheaper than the legit kind).

No professional supplier sells MMA as they couldn't afford the liability involved; just as no professional insured salon would use MMA. Insurers should be made aware of the immense liability these salons carry. This liability could cause the rest of the professional industries premiums to increase.

Around about 1974 the FDA placed MMA on its poisonous and deleterious list of substances and warned professional nail manufacturers against the use of the substance. Sale of monomers containing MMA would mean that the manufacturer could be held liable for the damage caused from the use of the product and the FDA would enforce regulation. No nail manufacturer has used MMA in any monomer formulations since as the field data and FDA stance is pretty self explanatory.

As the FDA stance was directed at manufacturers, not at technicians, MMA has been able to be used in the USA for many years, as it wasn't exactly illegal ... just warned against.

In the past several years, many states in the USA have been explicitly prohibiting the use of MMA monomers for use in nail applications at the salon level. This is a trend that should see all states explicitly prohibiting the monomer.

Nail technicians in the states now run the risk of losing their license or being sued by customers for the use of this substance. Being proactive could save the industry millions as well as the priceless loss of consumer confidence.

NSS (non standard salons) have done extensive damage to consumer confidence and the industry as a whole through the irresponsible and unprofessional use of MMA.

So what's the alternative?

EMA. The CIR approved EMA is strong, but has a designed limitation on strength. When enough force is applied to break an EMA enhancement, the result is usually little or no damage to the natural nail plate (dependant on how thick the enhancement is).

EMA has about 25 years of research and development behind it for the nail industry and therefore offers the safest, most advanced option over MMA.

And as far as the cost, MMA applications are actually only marginal over EMA applications.

O MY GOD! MY POWDER HAS PMMA!

Yup. So does damn near every powder on the market. So do countless other items that you use every day. PMMA stands for poly-methyl methacrylate. In plain old English, cured MMA. In this context, PMMA lends some of its strength to PEMA and poses none of the risks mentioned above.

Warning signs of MMA use:

MMA has an unusually strong or strange odour, which doesn't smell like other acrylic liquids. Odour is present during application and when filing cured product (for fill-ins or repairs).

Enhancements are extremely hard and very difficult to file even with coarse abrasives.

Enhancements will not soak off in solvents designed to remove acrylics.

Enhancements are cloudy or milky colour when cured.

Additional warning signs though less definitive:

Low price of fills and full sets (MMA cost 1/3 of EMA)

Dust or ventilation masks used (many technicians use dust masks today who do not use MMA)

Unlabeled containers - technician will not show or tell the client what brand of product is being used