

Data Supplement

Formaldehyde

Silylates

CIR EXPERT PANEL MEETING

JUNE 27-28, 2011

FORMALDEHYDE

Cosmetic Ingredient Review

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Memorandum

To: CIR Expert Panel and Liaisons
From: Director, CIR
Subject: Formaldehyde and Methylene Glycol – wave 2
Date: June 22, 2011

1. Attached are the comments received from the American Chemistry Council regarding the tentative amended safety assessment for formaldehyde and methylene glycol.

As I read it, the ACC is arguing that formaldehyde is not a cosmetic ingredient and that the name should be eliminated (and all of the descriptors such as formalin, etc. be included in the listing for methylene glycol). As I already have stated to the team leaders, I am concerned that a discussion of retaining formaldehyde as an ingredient name is not hugely productive for the Panel, because it is not our decision to make.

In addition, the ACC has taken exception to the use of formaldehyde equivalents and would prefer the idea of “releasable formaldehyde.”

2. Also attached is input from Women’s Voices for the Earth regarding the use of formaldehyde and methylene glycol in nail hardeners. They are challenging the idea of a separate, higher concentration limit for nail hardeners (i.e., the FDA action level of 5%) based on reports of adverse events with these products and on a study of formaldehyde gas from such products.



June 20, 2011

Alan Andersen, PhD
The Cosmetic Ingredient Review
1101 17th St. NW, Suite 412
Washington, DC 20036-4702

RE: Cosmetic Ingredient Review for Formaldehyde/Methylene Glycol

Dear Dr. Andersen,

The American Chemistry Council (ACC) is pleased to provide comments on the Cosmetic Ingredient Review (CIR) for Formaldehyde /Methylene Glycol. These comments are provided on behalf of ACC's Formaldehyde Panel.

While ACC has a number of comments, this letter provides comments focused on the nomenclature used in this CIR and specifically on the use of the term "Formaldehyde Equivalent."

First, it is important for the CIR to distinguish the terms for the ingredient in cosmetics. Formaldehyde (gas) is never used as a cosmetic ingredient. The ingredient in cosmetics is a solution containing formaldehyde hydration product of some concentration, often a 37% solution properly called formalin. Using the International Nomenclature on Cosmetic Ingredients (INCI), the choice of nomenclature for ingredients is either formaldehyde (gas) or methylene glycol (hydrated formaldehyde). The appropriate INCI name for the cosmetic ingredient is methylene glycol. Thus, ACC proposes that CIR focus this report on methylene glycol and use the correct nomenclature, methylene glycol, as the name for the report. ACC encourages the International Nomenclature Committee to review the INCI name "formaldehyde" and to consider merging INCI Monographs 1054 (Formaldehyde) and 23672 (Methylene Glycol) into a single monograph to cover the technical names Methanediol, Formalin, and Formaldehyde Solution.

ACC recognizes the nomenclature question raised by others that posits structural differences between methylene glycol and formaldehyde. However, they are closely connected. Formaldehyde reacts immediately with water to form a hydration product normally called formaldehyde solution, formalin, formaldehyde hydrate, or methylene glycol. While methylene glycol will off-gas some formaldehyde, the amount off-gassed is generally very low (<1% of the total methylene glycol content). A possible way of discussing the potential to generate gas phase formaldehyde is to adopt another term; we suggest "releasable formaldehyde." This "releasable formaldehyde" concept recognizes the potential generation of formaldehyde as an off-gas from a formulated cosmetic product, regardless of its source, whether from methylene glycol or another cosmetic ingredient. Thus, the formaldehyde gas that might become available subsequent to an equilibrium shift under specific end-use or storage conditions can be disclosed in the proper context.

Second, in cosmetics, the challenge is to clearly communicate the ingredients in the mixture and/or the potential consumer exposures to formaldehyde (gas) from normal use of the cosmetic. The term(s) should be ones for both manufacturers' communications and consumers' understanding. In the report it is important to address any safety concerns associated with the presence of the cosmetic ingredient, methylene glycol, as well as those from the potential for off-gassing of releasable formaldehyde during anticipated consumer/salon worker use. Introduction of the term "formaldehyde equivalents" in the CIR, frankly, confuses, rather than clarifies, these two objectives. Also, the term "formaldehyde equivalents" is problematic and connotes the regulatory concept of "dioxin equivalents" as a mathematical mechanism of adding up the potency of congeners within mixtures.

ACC urges that the CIR restrict the term "formaldehyde" to mean the gas, a substance not used as a cosmetic ingredient. We suggest that the CIR use the term "methylene glycol" to mean the hydrated form of formaldehyde, i.e., the form of formaldehyde that is present in aqueous solution. This subtle but important distinction is essential to clarify in the text of the CIR.

In addition, to these generic issues, we have some specific wording suggestions as noted below. ACC is still reviewing the CIR Panel Book for the meeting on June 27, 2011, and will submit additional comments.

Page 3: Paragraph 6.

Since the publication of the National Research Council's highly critical peer review of EPA's Draft IRIS Assessment, it is not necessary to cite or summarize EPA's draft IRIS Assessment. ACC recommends that the CIR remove this paragraph. Wherever the CIR wants to summarize the literature, it can do so without reference to the EPA Draft IRIS Assessment.

Chemistry

Page 3: Suggested rewording

1st Chemistry paragraph, line 6: ". . . form is highly ~~unstable~~ reactive."

1st Chemistry paragraph, line 6: "Formaldehyde quickly reacts with water to produce methylene glycol and, ~~without a polymerization inhibitor (e.g. methanol),~~ polymethylene glycols via a series of reversible reactions (Scheme 1). In the absence of a polymerization inhibitor, such as methanol, these reactions proceed to form a mixture. . ."

Page 4:

2nd paragraph:

- Line 1: insert "rate of" "The rate of formation. . ."
- Line 7: delete, "~~Moreover, a product formulated with either of the ingredients methylene glycol or formaldehyde~~ A formulated product actually contains . . ."
- Line 9: insert two new sentences: The glycol components of this mixture act as chemical reservoirs with the potential to release formaldehyde gas. As formaldehyde gas partitions into air, it is replenished from the glycol fraction of the mixture and the equilibrium is maintained.
- Line 13: the term "formaldehyde equivalents" is misleading and infers some additive potency factors (as in dioxin equivalents). Suggest deletion of this sentence.
- Line 16: Delete "formaldehyde or" in this sentence. It is clearly understood that methylene glycol will change its equilibrium upon heating.
- Line 17-18: Delete sentence starting "For this reason..."

Page 5: Formaldehyde Equivalents

Suggest deleting this section.

Page 5: Analytical Methods

ACC is reviewing the most recent version (blue, distributed May 23, 2011) and plans to provide additional comments on the analytical topics separately.

In the interim, the CIR should delete all references to "formaldehyde" unless it specifically refers to the gas. Instead, the CIR should use the term "methylene glycol" to refer to the cosmetic ingredient and formaldehyde in solution.

Page 8: Toxicology

Considering the April 8, 2011, report from the National Research Council on EPA's Draft IRIS Assessment, it is not relevant to reference the EPA draft (which is do not cite or quote). Therefore, the CIR can discuss the literature without referencing the Draft IRIS Assessment. CIR can reference the World Health Organization Indoor Air Guidelines 2010.

ACC is reviewing the most recent version (blue, distributed May 23, 2011) and plans to provide additional comments on the analytical topics separately.

Page 16: Discussion

Discussion—paragraph 1:

- "The CIR Expert Panel emphasized that formaldehyde solution and methylene glycol exist in an equilibrium in aqueous cosmetic formulations ~~whenever either one is present~~. That is, the addition of formaldehyde solutions ~~methylene glycol~~ to a cosmetic formulation will rapidly yield methylene glycol, and water, on a one to one basis until an equilibrium is reached.
- Further reactions to produce other forms such as paraformaldehyde are also possible. [While true, this conversion is minor in the context of the overall discussion.]

Page 17: ~~Formaldehyde/~~methylene glycol use as a hair smoothing agent

- Formaldehyde as a gas is not used in hair smoothing products. Methylene glycol does not exist as a gas. Revise heading and text to be consistent with the use of the term "formaldehyde" to refer to the gas and "methylene glycol" as the cosmetic ingredient.

Page 18: Tentative Conclusion

Revise heading and text to be consistent with the use of the term "formaldehyde" to refer to the gas and methylene glycol as the cosmetic ingredient. Methylene glycol does not exist as a gas; it exists in solution.

Revise text:

- ~~Formaldehyde/~~methylene glycol ~~are~~ is safe in cosmetic products when formulated to ensure use at the minimal effective concentration, but in no case should ~~formaldehyde~~ methylene glycol exceed 0.2%.
- ~~Formaldehyde/~~methylene glycol ~~are~~ is safe in nail care products at concentrations up to 5%, if provided with nail shields which restrict application to the nail tip (and not the nail bed or fold) and adequate instructions to use nail shields to preclude exposure of skin and the significant potential for allergic reactions if there is skin contact.

- It cannot be concluded that formaldehyde/methylene glycol is safe in cosmetic products intended to be aerosolized or in which formaldehyde/methylene glycol vapor or gas will be produced under conditions of use.

ACC plans to provide additional comments on the June 27th version of the Report. If you have questions about these comments, please contact me at ann_mason@americanchemistry.com and/or 202.249.6704.

Sincerely,
Ann M. Mason
Senior Director
American Chemistry Council
700 2nd St NE
Washington, DC 20002

Women's Voices for the Earth
National Asian Pacific American Women's Forum (NAPAWF)
California Healthy Nail Salon Collaborative

Cosmetic Ingredient Review
1101 17th St. N. W. Suite 412
Washington D. C. 20036-4702

By email cirinfo@cir-safety.org and Certified Mail

June 21, 2011

To: F. Alan Andersen, PhD, Dr. James G. Marks, Dr. Donald V. Belsito, and members of the Cosmetic Ingredient Review,

We are writing to the CIR to provide information about nail hardeners containing formaldehyde for your consideration at your next meeting on June 27-28, 2011. Our organizations, the convenors of the National Healthy Nail Salon Alliance, are committed to strategically advancing the health, safety and workers' rights of the beauty salon sector. We have long been concerned about the presence of formaldehyde in nail products, and have led successful campaigns to influence the industry to produce effective formaldehyde-free products – including nail hardeners.

We have reviewed the transcripts of the CIR's March 10-11 meeting and are concerned about the characterization of the risks of formaldehyde in nail hardeners as was discussed at that meeting. Similarly we do not believe that the submission of data from the Nail Manufacturers Council provides a comprehensive view of the hazards of formaldehyde in nail hardeners.

Specifically:

- We take issue with the claim that there is no history of adverse events associated with nail hardeners containing formaldehyde. While consumers may not be contacting manufacturers to report problems, they are reporting problems with these products frequently on customer review websites. Enclosed please find a compilation of customer reviews of nail hardener products containing formaldehyde which demonstrate a history of adverse events including skin irritation, burning sensation in fingers and hands, severe finger pain, strong unpleasant odor, coughing, dried out and peeling nails and other symptoms. These are all symptoms which are consistent with exposure to formaldehyde.
- We also disagree with the claim that formaldehyde vapor from the use of nail hardeners containing formaldehyde would be extremely low. While some of the formaldehyde may be fixed by the nail proteins, clearly there is a portion that will vaporize as well, despite being at room temperature. In fact, a 1999 study on formaldehyde emission rates from consumer products published in Environmental Science & Technology found that "fingernail polish and

hardener showed relatively high emission rates".ⁱ We have enclosed a copy of the study for your review.

We are concerned about the potential confusion to consumers if the CIR chooses to limit formaldehyde to .2% in all cosmetic products except nail hardeners. This will appear to be an arbitrary decision made merely to protect the commercial interests one particular sector of the industry at the risk of consumer safety. Given the wide availability of effective formaldehyde-free nail hardeners, we strongly encourage the CIR not to make an exception for nail hardeners, but rather to extend the same level of safety from formaldehyde for all cosmetic products.

On behalf of the National Healthy Nail Salon Alliance,

A handwritten signature in black ink, appearing to read "Alexandra Scranton". The signature is written in a cursive style and is centered on a light gray rectangular background.

Alexandra Scranton
Director of Science and Research
Women's Voices for the Earth

CC: Linda Katz, Food & Drug Administration

Enclosures

ⁱ Thomas J. Kelly, Deborah L. Smith, and Jan Satola (1999) Emission Rates of Formaldehyde from Materials and Consumer Products Found in California Homes. *Environ. Sci. Technol.*, 1999, 33 (1), pp 81-88. Available at: <http://pubs.acs.org/doi/abs/10.1021/es980592%2B>

Nail Hardener Reviews

The following are customer reviews of various brands of nail hardeners submitted to online product review websites and posted on blogs. All websites were accessed on June 14, 2011. The 35 reviews quoted below clearly demonstrate a history of adverse events associated with nail hardener products containing formaldehyde. The reviews detail problems with nail hardener use including skin irritation, burning sensation in fingers and hands, severe finger pain, strong unpleasant odor, coughing, dried out and peeling nails and other symptoms.

- 1) From: <http://www.amazon.com/review/R3MBSZQPZILGID>

Quimica Alemana Nail Hardener

★☆☆☆☆ **Not safe.**, August 15, 2010

[Bufster3](#)

This review is from: Quimica Alemana Nail Hardener 0.47 oz (Health and Beauty)

I saw all the wonderful reviews of this product and ordered it. I was so excited as my nails are very weak and brittle.

I noticed that there was a warning on the bottle stating that if a burning sensation occurs after application to remove it immediately. I figured it might sting a little but I was shocked when after 20 minutes or so I began to feel pain in my ring finger on my left hand. My finger tip and nail bed started to turn red and the pain traveled to the joint. Then as I was removing the product the pain began in other fingers on both hands. The pain continued and there was a rippling under my flesh that appeared on some fingers. The pain is mostly gone now after 2 days but this was a really scary experience.

- 2) From: http://www.amazon.com/Quimica-Alemana-Nail-Hardener-0-47/product-reviews/B001261XLO/ref=cm_cr_pr_viewpnt_sr_1?ie=UTF8&showViewpoints=0&filterBy=addOneStar

Works, but at a high cost, October 12, 2010

[T. torrez "Kat"](#) -

This review is from: Quimica Alemana Nail Hardener 0.47 oz (Health and Beauty)

I got this because I have extremely weak nails. I've tried tons of different nail strengtheners, and none have worked. I started using this and right away I experienced the burning. I took it off, waited for the burning to stop (it took a few HOURS), then did a very very thin coat. I kept doing this, and multiple times it burned and I had to take it off. After the third or fourth time it burned me, I noticed I was getting these little black areas under

my nails. Tiny thin little lines or dots. When one grew out, I saw what it was...a SCAB. Whatever in this nail strengthener burns you, it's strong enough to burn through your nail and make under your nail actually bleed. My nails may be longer and a little stronger, but I threw it away when I figured out how bad it was for my nailbed. I'm trying out perfect formula now, and I really hope it works. At least it hasn't burned yet. *crosses fingers*

- 3) From: http://www.amazon.com/Quimica-Alemana-Nail-Hardener-0-47/product-reviews/B001261XLO/ref=cm_cr_pr_viewpnt_sr_1?ie=UTF8&showViewpoints=0&filterBy=addOneStar

NOT Natural, February 13, 2011

[CM](#) -

This review is from: Quimica Alemana Nail Hardener 0.47 oz (Health and Beauty)

Claims to be one of the more natural nail strengtheners, but it contains formaldehyde and DOES yeild a strong odor.

I am not stating that the product is not effective. I did try it (rather than throwing it away once reading the ingredients).

It does provide a hard layer to protect nails, so it would be useful if you do not care what the liquid contains.

- 4) From: http://www.amazon.com/Quimica-Alemana-Nail-Hardener-0-47/product-reviews/B001261XLO/ref=cm_cr_pr_viewpnt_sr_1?ie=UTF8&showViewpoints=0&filterBy=addOneStar

Be Careful!, December 26, 2010

[SadiePoo](#) (Arizona)

This review is from: Quimica Alemana Nail Hardener 0.47 oz (Health and Beauty)

I bought this product based on the reviews I read here. However, as a few of the reviewers stated, BE Careful! I used this daily and did notice a slight burning sensation. I must be allergic to one of the ingredients because the skin around my nails became EXTREMELY red and irritated, almost like a burn. I quit using the product and it took several weeks for the redness to go away. I would recommend you proceed slowly with this product to make sure you aren't allergic.

- 5) From: http://www.amazon.com/Quimica-Alemana-Nail-Hardener-0-47/product-reviews/B001261XLO/ref=cm_cr_pr_viewpnt_sr_1?ie=UTF8&showViewpoints=0&filterBy=addOneStar

1.0 out of 5 stars **Burning and red nail bed**, May 19, 2011

[Stacy](#) -

This review is from: Quimica Alemana Nail Hardener 0.47 oz (Health and Beauty)

I purchased this through my hair stylist and it did a great job at making my nails grow. Every 2 or so days I add a new coat but it peels off and I add another. I have been using it for about 3 weeks and my nails look great but then the burning started. I had pain in the nail bed of 3 nails, After a few days it went away but when I had to add another coat the burning returned in 2 nails. It feels like the nail is lifting from the nail but I don't think it is. I think the nail thinned out from the layers of the polish coming off and the chemicals seep into the nail bed and cause pain. It has also turned parts of the nail bed red, like it is irritated. It really hurts and I will quite using this product.

- 6) From: http://www.amazon.com/Quimica-Alemana-Nail-Hardener-0-47/product-reviews/B001261XLO/ref=cm_cr_pr_viewpnt_sr_1?ie=UTF8&showViewpoints=0&filterBy=addOneStar

OUCH!!, April 8, 2011

[Suzanne E. Burger "MountJoy Mama"](#) (Mount Joy, PA United States) –

This review is from: Quimica Alemana Nail Hardener 0.47 oz (Health and Beauty)

I don't know what was in this stuff, but it BURNED under my nails!! It caused my nails to separate from the nailbed underneath and caused a few scabs, too. I used it once then threw it away. Be careful - it stings!!

- 7) From: http://www.amazon.com/Quimica-Alemana-Nail-Hardener-0-47/product-reviews/B001261XLO/ref=cm_cr_pr_viewpnt_sr_1?ie=UTF8&showViewpoints=0&filterBy=addOneStar

THEY ARE LYING!! DONT WORK @ ALL....IT'S BS!, May 15, 2011

[Gabrielle Love](#) - [See all my reviews](#)

This review is from: Quimica Alemana Nail Hardener 0.47 oz (Health and Beauty)

OMG THIS NAIL POLISH WORKS GREAT, MY NAILS GROW STRONGER,FASTER & HEALTHIER..??(FAIL!)..my nails still brake off ive use this for 2 weeks its a very good NAIL SHINER!!. BUT far as nail growth and hardner.. nope dosent work for me the polish peels off every once a while ..the first time ive use it my thumb nail just had broken off when i applided the "Quimica Alemana" <~ whatever that means. IT BURN THE HELL OUT OF MY NAIL!!! maybe because my nail just had been broken off but anyway it hurted. Just because you hear much good reveiws please dont be in a rush to buy it (like me..lol) I WAS REALLY TRYING TO FIND A GOOD NAIL POLISH TO HELP MY NAILS GROW!!! BUT THIS NOT

IT!!..(NOT SAYING U CANT TRY IT) but this didnt workout for me ...:(
p.s still going to use it for a shiner..LMMFAO!..SAD

- 8) From: http://www.amazon.com/Quimica-Alemana-Nail-Hardener-0-47/product-reviews/B001261XLO/ref=cm_cr_pr_viewpnt_sr_1?ie=UTF8&showViewpoints=0&filterBy=addOneStar

esmalte endurecedor para unas is horrible, May 10, 2011

[Deanne D'imperio "book Deanne"](#) (Rutherford, NJ) -

This review is from: Quimica Alemana Nail Hardener 0.47 oz (Health and Beauty)

This burned terribly on my nails... had to take it off immediately. And when I bought it in a nail salon, I paid \$15! I'm throwing it out.

- 9) From: http://www.amazon.com/Duri-Cosmetics-00001-Rejuvacote-0-61oz/product-reviews/B000G33KEO/ref=cm_cr_pr_viewpnt_sr_1?ie=UTF8&showViewpoints=0&filterBy=addOneStar

OOOUUCCCHHH!!!!, July 29, 2007

[C. Davies](#) (Washington, D.C., district of columbia USA) -

This review is from: Duri Cosmetics Rejuvacote 0.61oz (Misc.)

When I was getting my acrylic nails removed at the salon, my nail artist reccomended this product. I put a coat on when i got home and a few minutes later, I was in so much pain on my nails and finger tips it was unbelievable! I don't know if it was that my nails were so thin from the acrylic that the polish seeped through and irratated me under my nails or what but it was bad! The pain was indescribable! It was burning and stung and was sore all at once! I want strong, long nails so badly, but now I'm afraid to try anything else!

- 10) From: http://www.amazon.com/Duri-Cosmetics-00001-Rejuvacote-0-61oz/product-reviews/B000G33KEO/ref=cm_cr_pr_viewpnt_sr_1?ie=UTF8&showViewpoints=0&filterBy=addOneStar

1.0 out of 5 stars **Damages the nail bed! Nails turned blue!**, July 12, 2008

[Naomi](#)

This review is from: Duri Cosmetics Rejuvacote 0.61oz (Misc.)

I had this on my nails for 3 days when they started to really hurt and turn blue. When I took the polish off, my nails looked bruised. It felt like needles had punctured the nail bed. I do

think the product is so heavy it cuts off all circulation and oxygen to the nails. My nails are on the thin side, so perhaps that is why I had that reaction, but I assume most people using this product have thin nails. Use with caution!!

11) From:

http://www1.epinions.com/review/OPI_Matte_Nail_Envy_Natural_Nail_Hardener/content_32772034180

Nail Envy- not always for everyone

Written: Jul 23 '01

Product Rating: ★☆☆☆☆ **Pros:** Comes from a great manufacturer, but...

Cons: Wrecked my nails, more than once.

The Bottom Line: Try to find a mini-bottle and experiment first!

RVKMA's Full Review: Opi Matte Nail Envy Natural Nail Hardener

I realize that many many people swear by OPI Nail Envy, but I had a bad reaction to it. I've tried to use this product twice, a year apart, with the same results. My nails dried out, and peeled like I've never seen them peel before! They pretty much crumbled from the tips down - shredding like paper. I must be sensitive to some ingredient - I use OPI polishes with no problems, and I have used just about every other strengthener out there with no bad reactions, so it must be something unique to Nail Envy.

Since I love OPI's other products, I would suggest getting yourself a mini-bottle of this, especially since it's very expensive. You can usually find a mini bottle for \$4-6 at the salon or beauty center, and they include a mini in most of their seasonal gift sets. Or, buy from a salon/store that will allow refunds.

12) From:

http://www1.epinions.com/review/OPI_Matte_Nail_Envy_Natural_Nail_Hardener/content_378580209284

Another nail disappointment

Written: Jun 19 '07

Product Rating: ★★☆☆☆ **Pros:** Shiny appearance to my nails

Durability:



Cons: Made my nails peel worse than before, hard to find

The Bottom Line: Use with caution. If you're sensitive to chemicals, I would avoid this product.

rjschweitzer's Full Review: Opi Matte Nail Envy Natural Nail Hardener

I was born with weak nails. No matter what I try--supplements, nail strengtheners, eating more Jello--my nails don't improve. A friend raved about OPI's Nail Envy, so I went to the mall and bought some at Trade Secret.

The instructions said to apply one coat every other day, so I applied it shortly before bedtime. What I wasn't sure about was how often to remove it. Using nail polish remover, even the acetone-free kind, is harsh on nails, so would it negate the effects of the Nail Envy? I ended up removing the buildup once per week, or whenever I felt it got too thick.

I used this product for six months, as directed. In that time, my nails actually got **worse** and peeled even more! I tried other methods of using this product, such as using it as a base coat or top coat only. This didn't seem to improve things. Once I cut out the Nail Envy, my nails went back to their sub-normal state.

I have since learned that OPI uses formaldehyde in their products, a carcinogen which is known to dry nails. Why would they use such a product in a nail hardener? I read a report from Women's Voices for the Earth, dated March 29, 2007, that OPI is removing other chemicals from their products but will keep formaldehyde in the nail hardeners.

I was disappointed in this product, especially for the price I paid.

Recommended:

No

13) From:

http://www.makeupalley.com/product/showreview.asp/ItemId=53395/Nail_Magic/0/Treatments



[Bfarris89](#) on 5/3/2011 5:04:00 PM [More reviews by Bfarris89](#)

Age: 19-24 Skin: Normal, Tan, Not Sure Hair: Brunette, Other, Other Eyes: Blue

Hoooooly Cow!!! After having acrylics for years my nails were very unhealthy and paper thin so I purchased Nail Magic which was recommended to me by a store associate. After applying the regiment, my nails started burning so bad that it was unbearable!! Immediately I started looking at reviews and found that others had experienced the same outcome with this product. After about an hour of thinking the pain would go away I removed it with finger nail polish remover and instantly felt better! I also see many people who are satisfied with this product but I'm undecided if I will give it another shot once my nails have healed.

14) From:

http://www.makeupalley.com/product/showreview.asp/ItemId=53395/Nail_Magic/0/Treatments

[Kunko](#) on 3/13/2011 6:55:00 PM

Age: 19-24 Skin: Combination, Fair-Medium, Neutral Hair: Brunette, Other, Medium Eyes: Other

I love this product! I have always had nails that flake and break off if they grew even a little bit past my nail bed. I have tried the OPI nail treatments, and they have failed me miserably and was a waste of money.

So after seeing some good reviews on youtube I took the plunge and bought it. Just as a warning the first time I tried it my nails HURT like it was a mild burning sensation for the first few hours. The next time I tried it, it didn't hurt, so maybe that was the formula showing me just how weak my nails were? After using it once a week for a few months I had wonderfully strong and long nails that were the envy of all my friends, I was constantly asked if they were fake.

I would recommended this product to anyone who is trying to grow out their nails and having a hard time doing it, but just a warning if you have really weak nails like I did it will burn and hurt the first time you use it.

P.S. - they have a new "natural" formula I'm currently trying out to see if it is any better.

UPDATE: So I have been using the "natural" formula and I have to say don't waste your money on it, my nails went back to breaking and chipping so it wasn't worth it, just stick to the original formula if you want results.

15) From:

http://www.makeupalley.com/product/showreview.asp/ItemId=53395/Nail_Magic/0/Treatments



[Lizzix3](#) on 12/4/2010 3:14:00 AM

Age: 19-24 Skin: Acne-prone, Fair, Neutral Hair: Brown, Wavy, Medium Eyes: Green

This stuff works very well for me. You have to use it continuously for the full six weeks though before it works though.

This contains formaldehyde. YOU must make the decision whether its worth it to try.

If you want to wear polish with this treatment I suggest putting a base coat over the Nail Magic and under the color because this tends to peel off in big sheets after a couple days and will take your manicure with it unless you have something on top of it to keep it on.

Do not get this on your skin! It burns. Careful application is key with this product especially with the possible side effects of absorbing formaldehyde through your skin.

This product smells awful. Worse than a regular nail product. Keep that in mind.

The bottle doesn't last very long..eventually it thickens and becomes unusable..I got about three months out of my first bottle.

Overall I like it and will continue to use it but it might not be for you.

16) From:

http://www.makeupalley.com/product/showreview.asp/ItemId=53395/Nail_Magic/0/Treatments

 [charstone](#) on 11/10/2010 1:38:00 PM

Age: 44-55 Skin: Sensitive, Fair-Medium, Neutral Hair: Blond, Wavy, Fine Eyes: Hazel

I too have had the extreme burning reaction. I tried two coats as recommended and had to take it off within 5 minutes. I then tried one coat, being very careful not to get any on my cuticles and put oil around the edges immediately. Same TERRIBLE burning. I must be allergic. Someone else stated that if you are allergic to bees (I am) then probably best avoided. The problem is that you cannot have a test of these products before trying and it is not that cheap in the UK.

I have had a similar reaction to Naitiques if it get too thick, but nothing like this!

17) From:

http://www.makeupalley.com/product/showreview.asp/ItemId=53395/Nail_Magic/0/Treatments

 [famoushair](#) on 4/4/2010 7:39:00 AM

Age: 36-43 Skin: Very Oily, Fair, Not Sure Hair: Blond, Other, Other Eyes: Blue

When I first purchased and used Nail Magic, I was pleased. It comes in a cute package and goes on thickly but evenly, with a pink appearance in the bottle but a clear appearance on the nail. I thought this would serve as a nice basecoat and hardener for my relatively wimpy nails.

I'm a couple of months into using it and my nails are worse than when I started using the product. After a bit of online research on the product, I realize this stuff is largely formaldehyde and therefore can be drying. I live in a very dry climate, and it's been pretty cold here. The end result: short, chippy nails, made worse by my attempts at filing them into shape, thus causing them to be painfully thin. Application of Nail Magic the last few times caused my nail beds to burn/sting with a fierceness I have no words to describe. My nail beds are way too soft and they ache.

Now I'm going to let my nails go "naked," and give them lots of moisture in the hopes that they can recover some of what was lost over the past couple months.

So despite all the successes listed here, Nail Magic was way less than magical for me. I'd rather have the wimpy (but relatively healthy) nails I started out with!

18) http://www.amazon.co.uk/product-reviews/B002EIHEI2/ref=cm_cr_pr_viewpnt_sr_1?ie=UTF8&showViewpoints=0&filterBy=adOneStar

1.0 out of 5 stars **i'm not sure it worked?**, 29 April 2011

[Miss Zoe Maskell](#) -

This review is from: Nail Magic Nail Treatment and Conditioner (Misc.)

I brought this product after my nails started peeling which I was very unhappy about. It took about 10 days to arrive by which time I had brought myself new nail polish remover (that was meant to be kinder to my nails) and had left my nails unpolished for a week to try help them.

when the nail "treatment" arrive I put it on that evening, and after reading the back I did my very best not to get any on my skin. it took a long time to dry and then had to put a second coat on which took even longer. that night I was kept awake by the pain on the sides on my nails (not somewhere I thought that much pain could ever be felt!) even though I had made sure that the "treatment" had stayed away from any skin. but I carried on for 2 weeks only wearing it and putting on two layers 2/3 times a week (even though every time it still hurt!). Before deciding it was time to have coloured nails again.

nail polish doesn't seem to say on top of it and even though my nails are better than they were when I first brought the product I believe that it had more to do with the fact that I'm using better nail polish remover (that cost me about £3). If your having a similar problem I would defiantly recommend you try doing that first and then if it doesn't work then find another nail treatment, because this one doesn't seem to do any good.

19) http://www.amazon.co.uk/product-reviews/B002EIHEI2/ref=cm_cr_pr_viewpnt_sr_1?ie=UTF8&showViewpoints=0&filterBy=adOneStar

Hate this product!, 8 April 2011

[E. Crane](#) (South Yorkshire)

This review is from: Nail Magic Nail Treatment and Conditioner (Misc.)

I purchased this after hearing many good reviews, and when I recieved it and applied it, my nails and fingers were in server pain along with throbbing and burning sensations.

After hoping the pain would subside, it didn't and had to remove it as the pain was so bad :(

£[] (including p&p) was a waste of money!

20) From: <http://www.makeupalley.com/product/showreview.asp/ItemId=6776/Nail-Hardener/Mavala/Treatments>

Mavala Nail Hardener



[FunkyMonkeyNOTaDonkey](#) on 1/17/2010 7:52:00 PM

Age: Unknown Skin: Other, Other, Not Sure Hair: Other, Other, Other Eyes: Other

Love.Love.LOVE this product. It is 4% formaldehyde, not mostly formal as others have mentioned. The concentration is considered high though in comparison to other cosmetics products. If you use ANY other nail treatment with formaldehyde in it then you should use only 1 at a time or over-drying will occur. Also use this 2-3 times a week at most. I have used this for about 2 months. I use a hydrating base coat in addition to this - nothing with extra protein or hardeners. I apply this to more than just the tips of my nails, but rarely, I have noticed it works better this way for me.

Due to this product I was able to FINALLY get really long nails, and they just do not break, they are hard but not brittle.

This is not a polish or base coat, instead it is in an actual treatment that is absorbed by the nail.

1 bottle lasts about a year if used according to directions, do *look* at your nails and use more sparingly when you see they are getting hard or brittleness will occur.

21) From: <http://www.makeupalley.com/product/showreview.asp/ItemId=6776/Nail-Hardener/Mavala/Treatments>



[Gradle](#) on 10/23/2009 5:13:00 PM

Age: 36-43 Skin: Combination, Other, Not Sure Hair: Red, Other, Other Eyes: Green

I hate to ruin the good reviews, but this stuff ruined my nails. I stumbled upon the reviews and decided to purchase based on the excellent ratings. My nails had finally grown out and looked nice, and based on the reviews this seemed like a good product to maintain the health of my nails. Almost immediately my nail tips started peeling and flaking off, but I kept using this weekly for about six weeks to give it a chance. The entire time I used it my nails were a flaky mess, and they've started growing a bit now that I've stopped. While using this, I continued to use the same base coat I'd been using, so really the only change was the Mavala Nail Hardener. I really wish that I got the results that everyone else got, but my search for a good nail strengthener continues. If this works for you, it's a great buy because this one bottle looks like it will last forever.

22) From: <http://www.makeupalley.com/product/showreview.asp/ItemId=6776/Nail-Hardener/Mavala/Treatments>

[Taniaebj](#) on 1/28/2011 8:23:00 AM [More reviews by Taniaebj](#)

Age: 36-43 Skin: Combination, Olive, Not Sure Hair: Brunette, Other, Other Eyes: Brown

I was so excited to get this after all of the wonderful reviews, but alas, it was not to be. I gave it a fair shot by using it for at least a month and also following the directions carefully. My nails became drier and more brittle than before. My nails went back to their original weak and fragile state as soon as I stopped using it. Will not buy again, did not work for me :(

23) From: <http://www.folica.com/reviews/spa-and-body/manicure/mavala-scientifique-nail-hardener>

Cathey, Tulsa, OK

It Works, Until It Ruins Your Nails! Beware of Formaldehyde

Warning! Warning! Warning! This product contains 4% formaldehyde. The maximum in cosmetics is usually .2% which does not require a warning label and anything over .2% with up to 3% requiring a warning label, but this doesn't have a warning label. This stuff worked great for me for about 2 months, I got amazing results, and then BAM BAM BAM peeling non stop. Peeling and splitting like crazy. My long nails reverted to the shortest they have been my entire life. That is the amazing power of formaldehyde. It works by making the keratin bonds in your nails have more threads which make the bonds harder, however there is no max to how many threads formaldehyde helps the keratins create. It can make the keratin bonds in your nails so strong that your nail will actually lift off from the nail bed. Use this at your own risk and be careful.

24) From: <http://www.folica.com/reviews/spa-and-body/manicure/mavala-scientifique-nail-hardener>

Anonymous

Didn't Work!

This didn't work for me at all. My nails are even more frail, brittle, and peel easily. I think this is actually drying my nails out more. I felt like I wasted my money on this product.

25) From: <http://answers.yahoo.com/question/index?qid=20090901184730AAvPQ8o>

Nail Magic" nail hardener makes my fingers ache.?

There is this nail hardener that I buy at Sally's. It's pink and it comes in a box and it's called Nail Magic. I like it because it makes my nails strong and it makes them grow faster. But I've noticed that whenever I use it, my fingers kind of burn.

The more I use it, the worse it gets.

I used it quite a few hours ago and my fingers still hurt. So much so that they feel like they are on fire and the ache has gone up to my elbows and into my wrists.

It hurts quite a bit, but the polish is dry.

When I run my hands under cold water, or put them right in front of the AC, the pain subsides, but as soon as that cold wears off, it comes back...

Any ideas as to why it's doing this or how I can make it stop?

(And don't say "Stop using it" because I've already decided that I'm going to if there's no other solution...)

26) From: <http://answers.yahoo.com/question/index?qid=20090901184730AAvPQ8o>

Best Answer - Chosen by Asker

OMG the same thing happened to me! I still have it, it comes in a purple box, with gold on it. I liked it for about the first week. Then it started burning my under my nails turned a reddish color... I was horrible..I left it on for another week, but I noticed it was just getting worse and my fingers began to swell, i even stopped being able to sleep! After I couldn't sleep I decided to take it off with [nail polish remover](#) and it kept burning for about another week. It hurt all the time, especially if I touched something. I went to my dermatologist and she said that I had a [chemical burn](#) and actually had to prescribe an antibiotic ointment to rub into my nails. They finally healed. From previous use and pain I would say stop using this immediately! I know its great for awhile, but now I'm just using a [sally hansen](#) hard as nails and it works just fine too. Go see your local dermatologist you might need an antibiotic too!

27) From:

http://www.makeupalley.com/product/showreview.asp/ItemId=20287/Witchcraft_Nail_Hardener/0/Treatments

Witchcraft Nail Hardener

[summerrain1994](#) on 5/29/2011 10:14:00 PM

Age: 18 & Under Skin: Acne-prone, Fair, Neutral Hair: Brunette, Wavy, Coarse Eyes: Brown

I purchased this at Wal-mart for around \$8 CAN I believe, and am really glad that I did!

For a girl that has brittle (they break easily) and flaking nails, I wanted something that would make my nails stronger. I work at a bookstore as well, and no matter what I did, sticking my hands in and out of the books also seems to ruin my nails.

Anyways, this stuff is great! I wear two coats underneath my regular nail polish, and one on top. It keeps

my nails strong, and my polish long lasting.

The only time I get breaking is when the polish begins to chip off the tips of the nails. I agree with the MUAer that said that when they don't wear this treatment, their nails get very brittle. This is the same for me, and though it's annoying, I just try to keep up with the treatments (applying at least once a week). The smell isn't that great either, it's super strong, but I just do my nails outside in this case.

28) From:

http://www.makeupalley.com/product/showreview.asp/ItemId=20287/Witchcraft_Nail_Hardener/0/Treatments

★ [selmf](#) on 10/13/2007 8:26:00 PM

Age: 44-55 Skin: Combination, Other, Not Sure Hair: Blond, Other, Other Eyes: Blue

Bought this on ebay, could not find any other place. I am about 2/3 of the way through the bottle and it really has helped my thin nails. It keeps them from peeling and bending. If you try it be sure to use it in a well ventilated area. It is very strong.

29) From: <http://thebeautybrains.com/bbforum/discussion/2024/mavala-scientifique-nail-hardener-formaldehyde-dilema/p1>

- [georgia](#) June 4

Mavala Scientifique contains 4.5% formaldehyde. It's meant to be used only on the white portion of the nail. I've used it briefly when my nails have become too soft, but I try to avoid it. I find the odor very strong, so I use a mask when applying.

30) Fromn: http://www.amazon.com/Quimica-Alemana-Esmalte-Endurecedor-Hardener/product-reviews/B0038IA8XA/ref=cm_cr_pr_hist_1?ie=UTF8&showViewpoints=0&filterBy=addOneStar

1.0 out of 5 stars **Burns**, April 8, 2011

[Nancy Mallory](#) -

This review is from: Quimica Alemana Esmalte Endurecedor de Unas (Nail Hardener) 0.47 FL. oz (Health and Beauty)

Saw this on the Today show. Amazon is GREAT...I always receive my purchases timely. So I was excited to try this nail hardener, but almost immediately after I put this on, my nail beds began to tingle..and not in a good way. I left it on for about 15 minutes and the nail beds began to burn. I have natural nails, but used to have silk wraps 5 years ago. The

product has a high concentration of formaldehyde that is not allowed to be produced in the US. It seems to be OK for some people...it just didn't work for me.

31)

http://www.amazon.com/review/R12PPG91MKLESR/ref=cm_cr_pr_viewpnt#R12PPG91MKLESR

Good news & bad news, April 8, 2011

[Helen James](#)

This review is from: Quimica Alemana Esmalte Endurecedor de Unas (Nail Hardener) 0.47 FL. oz (Health and Beauty)

This nail hardener really works. It's like putting super glue over your flaky, layered, weak nails. The only problems I found were: If you get any on areas of cuticle or edges of nails it may throb for hours. Since the product is thick, it may hold to brush stem as pulled over edge of bottle and drop onto clothes, skin, etc. Lastly the stem with brush just fell out of cap the third time I used it, and made a mess....don't know if it will stay attached after I tried to secure it back into the lid.

32) From: <http://www.justbeautysupplies.com/quimicaalemananailhardener.aspx>



All women can't live without.

Denise Johnson (Hartford, CT) 6/24/2010 1:17 AM

After a relief from artificial finger and toenails period. My fingernails were being dinged up a lot: thin, peeling and ridged. The Quimica Alemana Nail Hardener certainly did what it claims, and in a matter of weeks with one night put in surface buffing and I discovered that my fingernails have transformed. It's important to understand, precisely how the active chemicals in nail hardener works, and this should affect how you put them to use. Quimica Alemana is a Colombian-made formaldehyde or formalin based nail hardener, while other products are reported to possess protein or nylon bases. The formaldehyde/formalin mixture means that the active chemical substances are really strong and efficient and consequently should be applied with extreme care and perseverance -- the latter of which is hard to have when you've just ripped away a set of acrylics and sworn them off for good! With very thin fingernails at the beginning, my two times coating on the first try was entirely too much and my nails were burning the whole evening and they were even super sensitive through the next day, especially to heat. Starting up a strategy, as I have, of every 4 to 5 days eliminating the old layers and reapplying another nice and single full covering coat. I think I used way too much too shortly, and some of my fingernails began to get opaque, whitish areas and marbled, striated growth marks of the identical color. I'm nevertheless extremely delighted with the actual effect of considerably strong and tough nails within simply weeks; on the other hand, I'd advise the following, a more patient approach: Begin with one thin coat and reapply merely 1 thin layer every 4 days to one week for 3 weeks or so. In my instance, I believe the nail bed has been overstimulated with the formaldehyde process and

consequently over reacted in hyper-producing keratin's cross-linking fibers, which are the natural structures of nail strengthening.

33) From: <http://www.justbeautysupplies.com/quimicaalemananailhardener.aspx>

ESMALTE ENDURECEDOR PARA UÑAS

Patricia Santana (New York City, NY) 6/13/2010 11:04 PM

I've never ever made a critique prior to on Just beauty supplies site however after experiencing this nail hardener for a few weeks and realizing the improvement, I basically had to fill every person know how wonderful this product is. My fingernails would definitely always crack and were extremely weak until now. I have burned my money on any drug store nail strengthener and they never worked. Right after one week, I noticed the effects and after an complete month, my fingernails are longer and the tips are white. I ought to warn you that with my first several uses, my nail beds did hurt a little, but I assume I used too lots of layers. Other than that, this Quimica Alemana Nail Hardener is undoubtedly well worth the money! Make sure you get it on the net or here at Justbeautysupplies.com. \$7.99 a bottle is better than \$15 or \$20 in nyc.

34) From: <http://cydonianmakeup.blogspot.com/2010/03/nail-magic-review.html>

Nail Magic Review

To start this off, my nails were in pretty sad shape about a month and a half ago. I had my hair professionally dyed purple (at the ends) and for whatever the reason, the color deposited itself heavily under my nails and all over the tops. So, after about a week, my nails were broken and fragile from all the chemicals.

So, I wandered into Sally's and asked for help... they had Nail Magic on special for \$6.99 or so (about \$6.50 with my Sally's card). The regular price is \$8.49, \$7.99 with your Sally's card...

I can see the improvements in them from this product, but I also have some major issues with Nail Magic as well...

3) Smell. The smell is pretty strong... it's a general chemical smell mixed with a teeny tiny bit of garlic. Weird, I know. I use this at night so it's not an issue but if I keep using it while my boyfriend is here, I'm gonna have to find something to cover it with. That just isn't an attractive thing to get into bed smelling like. It does dissipate after an hour or so, and I found that using a scented hand soap helps to mask it.

4) Pain. It is very painful when applied the first few times you use it. It feels like your nail beds are swelling -- literally. It's hard to describe how it feels... it's a general burning/aching feeling. I did notice after a few weeks that my nails were desensitized and it definitely didn't hurt as badly. Also, do not get this product on your skin! It hurts horribly. If you do, I found that washing my hands gently in cold water and soap helped to calm it. I was usually okay by the following morning.

35) From: <http://www.tumblr.com/tagged/nail+harmony>

Nail Magic Report: Day 1

I've decided to track my progress using Nail Magic. I have been using gel nail polish for over 2 months now. I started doing it myself about a month and a half ago after a HORRIBLE nail salon experience and I kept up with it because of the damage done by the "technician". (Who uses a metal scraper across the nail bed!?)...

So last night after removing Gelish I applied Nail Magic as directed. A thin coat over your clean nails. It dries to a satiny-matte finish like most base coats. I then applied two coats of color (I went with China Glaze Go-Go Pink) and then they recommend applying another coat of Nail Magic as your top coat. Because it dries matte-ish, I got a little nervous but it seems that over polish it dries nice and shiny! I should note - if your nails are weak and brittle (as mine are) you may experience burning for a few hours after application. My ring finger nails were the damaged the worst (they are my weakest nail to begin with) and they did burn for a while. But it stopped. I would say if you experience extended burning (like more than a few hours) - remove it!

SILYLATES

Cosmetic Ingredient Review

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June 17, 2011

To: CIR Expert Panel and Liaisons

From: Lillian C. Becker, M.S.
Scientific Analyst and Writer

Subject: Antifoam A Studies and Data Submissions

The studies using Antifoam A & M were submitted by Dow to the EPA to provide evidence for the safety of siloxanes and silicones. For example,

Dear Sir:

The enclosed information is submitted on behalf of Dow Corning Corporation, Midland, Michigan, 48686-0994, in compliance with the referenced health and safety data reporting rule.

Listed Chemical Substance(s):

63148-62-9 siloxanes and silicones, di-Me (Dimethyl silicones and siloxanes) 93%

67762-90-7 Dimethyl silicones and siloxane, reaction products with silica 7% in Antifoam A

Title of Submitted Study:

CHRONIC (8-Month) FEEDING STUDIES WITH ANTIFOAM A IN RABBITS

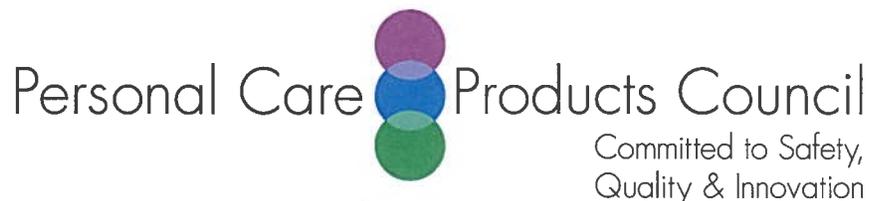
Dow Corning Corporation

November 19, 1965

These are the CAS numbers for ingredients in the silylates report, so we included the data that Dow Corning submitted (such as the referenced rabbit feeding study) to EPA in the report.

Now we have the attached input from Dow Corning via the Council indicating that Antifoam A has always been considered as Simethicone (and is registered that way in the INCI database). The reaction conditions needed to make Silica Dimethyl Silylate are more extreme than what is used to make Simethicone. They recommend that Antifoam A not be included in the current report that includes Silica Dimethyl Silylate. The Council went on to note that the Dictionary defines Simethicone as: "a mixture of Dimethicone (q.v.) with an average chain length of 200 to 350 dimethylsiloxane Units and hydrated silica". We will have to hash this out at the Panel meeting, but if all the Antifoam A data are deleted from the report, it may be that the conclusion would be insufficient data for the silylates."

Data on the physical and chemical characteristics of trimethylsiloxysilicate in response to the insufficient data announcement were also submitted.



Memorandum

TO: F. Alan Andersen, Ph.D.
Director - COSMETIC INGREDIENT REVIEW (CIR)

FROM: John Bailey, Ph.D.
Industry Liaison to the CIR Expert Panel

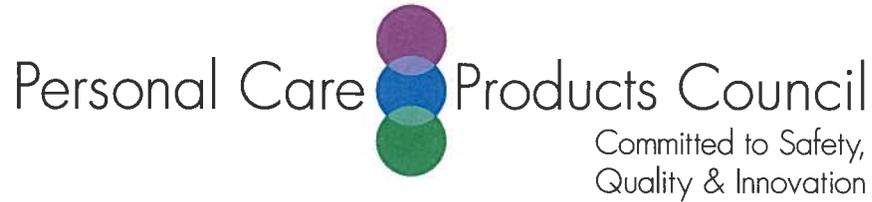
DATE: June 9, 2011

SUBJECT: Information concerning Antifoam A

Dow Corning has indicated that Antifoam A has always been considered as Simethicone (and is registered that way in the INCI database). The reaction conditions needed to make Silica Dimethyl Silylate are more extreme than what is used to make Simethicone.

They recommend that Antifoam A not be included in the current report that includes Silica Dimethyl Silylate.

The Dictionary defines Simethicone as: "a mixture of Dimethicone (q.v.) with an average chain length of 200 to 350 dimethylsiloxane units and hydrated silica".



Memorandum

TO: F. Alan Andersen, Ph.D.
Director - COSMETIC INGREDIENT REVIEW (CIR)

FROM: John Bailey, Ph.D.
Industry Liaison to the CIR Expert Panel

DATE: June 20, 2011

SUBJECT: Product data: Trimethylsiloxysilicate

Anonymous. 2011. Product data: Trimethylsiloxysilicate.

June 10, 2011

Silicone Resins

Product Description

silicone resin products. These highly durable materials provide excellent water repellency and resistance to detergent wash off.

a 100% silicone resin. It is soluble in a number of silicone and organic fluids (see solubility chart).

INCI NAMES

Trimethylsiloxy silicate

Key Performance Properties

Highly Substantive	x
Resistant to Water/Detergent Wash-off	x
Excellent Film Former	x
Smooth Non-Tacky Feel	x
Reduces Whitening or Soap Effect in Lotions	-
Fast Dry Time due to Volatile Carrier	-
Versatility of Carrier Choice	x

Applications

- Protective Skin Products
- Sunscreen Products
- Facial Make-up
- Lotions and Creams
- Color Cosmetics

Typical Product Data

Property	
Viscosity (cSt) @ 25-C	-
% Resin	100
Appearance	White Powder
Specific Gravity @ 25/25-C	-
Particle Size (microns)	20-100
Bulk Density (lbs/gal)	2.5

Typical Product Data SOLUBILITY DATA

Key: I = Insoluble at < 1% by weight
 PS = Partially Soluble at > 1% but < 10% by weight
 S = Soluble at > 10% in all portions
 SH = Soluble Hot at > 10% in all portions

Solvent Type	Material	
Highly Polar	Water	I
Hydrocarbon Solvents	Aliphatic	S
	Aromatic	S
Hydrocarbon & Vegetable Oils	Mineral Oil 65/75 SUS	I
	Mineral Oil 220/210 SUS	I
	Petrolatum	I
	Cottonseed (Gossypium) Oil	I
	Castor (Ricinus Communis) Oil	I
	Sunflower (Helianthus Annus) Seed Oil	I
	Maleated Soybean Oil	I
	Wheat (Triticum Vulgare) Germ Oil	I

Typical Product Data

Alcohols & Glycols	Cetyl Alcohol	SH
	Ethanol (95%)	I
	SD Alcohol 40	I
	Isopropyl Alcohol	S
	2-Ethyl-Hexanol	PS
	Lauryl Alcohol	I
	Stearyl Alcohol	SH
	Ethylene Glycol	SH
	Propylene Glycol	I
	Glycerin	I
Esters	Isopropyl Palmitate	S
	Isopropyl Myristate	S
	Myristyl Propionate	S
	PPG-2 Myristyl Ether Propionate	S
Silicones	Dimethicone (SF96-350)	S
	Cyclopentasiloxane (SF1202)	S
	Diisostearoyl	I

	Trimethylpropane Siloxy Silicate (SF1318)	
	Phenyl Trimethylcone (SF1550)	S

Typical Product Data

Waxes	Paraffin	I
	Ozokerite	I
	Candelilla (Euphorbia Cerifera) Wax	I
	Beeswax	I
	Carnuba (Copernicia Cerifera) Wax	I
Sunscreens	Octyl Dimethyl PABA	I
	Benzophenone-3	I
	Octyl Methoxycinnamate	SH
Pigments	D& C Orange No. 5	NA
	D& C Red No. 21	NA
	Iron Oxides	NA
Lanolin	Lanolin	I
Other	Tocopheryl Acetate	SH