FAQ

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Q1

- **What is VITRO-SKIN®?**

VITRO-SKIN® is a collagen based synthetic skin substrate, formulated and produced to mimic human skin. The topography, pH and surface tension are very similar to human skin, so it is the ideal substrate for in-vitro testing where human skin is required.

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Q2

- **How do I use VITRO-SKIN®?**

VITRO-SKIN® is typically hydrated in a Hydration Chamber (part of the Vitro-Skin Starter Kit) prior to use, however some applications may not require hydration. The applications of this material are extremely diverse, so methods will vary depending on use application.

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Q3

• What testing can be performed using VITRO-SKIN®?

VITRO-SKIN® is used in a wide variety of industries where testing of products on skin is necessary. Some of the areas where Vitro-Skin is currently being utilized include personal care, OTC products, chemical industry testing, Veterinary applications, disinfectants, Microbiome studies, anti-viral and anti-bacterial studies, adhesives markets, medical devices, dermal penetration/absorption studies, skin moisturization studies, malodor studies, coefficient of friction studies, waterproof/water resistance studies, soft focus studies, etc.

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Q4

- **What is VITRO-Skin® made of?**

Due to the proprietary nature of our products we are unable to provide information about the chemical composition.

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Q5

- **How is VITRO-Skin® packaged?**

Vitro-Skin comes as individual sheets and is packaged in a sealed thin plastic film.

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Q6

- **WHAT IS VITRO SKIN® TECHNICAL SPECIFICATIONS? (PAGE1)**

- **Sheet dimensions:** 1 sheet of Vitro Skin® is 8 ½”by 10 ½”
- **Thickness:** Approximately .00550 inches. Each sheet cannot vary more than + .0005".
- **Surface Tension:** Vitro Skin® has a target surface tension of 29 dynes/cm compared to a reposted range of 22-30 dynes/cm for human skin. **Topography:** The topography of VITRO-SKIN(R) N-19 is a repeating fractal pattern that is designed to mimic the topography of human back skin.

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Q6

- **WHAT IS VITRO SKIN® TECHNICAL SPECIFICATIONS? (Page 2)**

- **pH:** The target pH of VITRO-SKIN N-19 is 6.3

Vitro Skin® before and after hydration:

- Vitro Skin® increased in weight 14.6% after 20hrs in the hydration chamber.
- The thickness increased ~2%.

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Q7

- **What is the shelf life of VITRO-SKIN®?**

VITRO-SKIN® has a shelf life of approximately 12 months if stored in a cool, dry, dark environment.

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Q8

- **What is the shelf life of opened VITRO-SKIN®?**

The shelf life of the opened Vitro Skin® is one month. If you keep this product in a cool, dark area after opening, there should be no damage to it. However, you need to check periodically to see if any signs of mold growth are showing. If you notice mold growth, then the Vitro Skin® is no longer good for your testing needs.

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Q9

- **How long after hydrating VITRO-SKIN® is it usable?**

Once the skin is hydrated, you should use it within 24 hours.

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Q10

- **Do you have a list of compatible solvents that can be used with the VITRO-SKIN® and/or do you have a list of solvents that are known to be incompatible?**

Most Organic solvents should be compatible with Vitro-Skin. We have used this material with solvents such as ethanol, Isopropyl alcohol etc. without issue and the less polar organic solvents such as benzene should be also equally fine. Long exposures to a highly polar solvent such as water, especially while at elevated temperature may impact the skin integrity somewhat.

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Q11

- **Are there any solvents that are known to readily dissolve VITRO-SKIN®?**

We have performed some testing to dissolve Vitro-Skin and have found that using 1M NaOH solution will dissolve it in 20-30 minutes. If you are looking to dissolve and also extract organic components that may have absorbed into the Vitro-Skin you may look into an ethanolic NaOH blend to achieve this.

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Q12

- **Are there any known complications when using sonication techniques on VITRO-SKIN®?**

Sonication while at high temp in an aqueous base such as water may disrupt the Skin structure slightly, but sonication with an Organic Solvent should be fine.

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MORE QUESTIONS

Contact us today
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