



## His Glassworks, Inc.

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### The Vari-Etch Cream Process

Typically three to five minutes of contact with Vari-Etch Cream will result in a finely etched surface. Longer periods of immersion will result in a more aggressive etch on the surface. Over time, the solution of Vari-Etch will turn a dark amber color. This reaction is due to light exposure and does not affect the etching quality of the solution nor does it mean that the solution needs to be replaced.

The use of a secondary rinse bath is strongly encouraged prior to the final rinse at your sink. This first rinse bath will eventually become acidic and should be treated with care. This liquid can then be neutralized with the addition of soda-ash (baking soda) and then disposed of down the drain.

The most beneficial use for Vari-Etch is the fingerprint sealing of sandblasted glass surfaces. A soak in a bath of Vari-Etch for 10 to 15 minutes will effectively etch the glass surface into a uniform frosted finish that will not absorb fingerprint oils. Adjusting the concentration of the Vari-Etch bath will result in a variety of surface finishes on the sandblasted surface. No longer will you need to be oiling the old sandblasted glass to protect it.

### The Variable nature of Vari-Etch

Vari-Etch will etch different glasses at different rates (Note: Borosilicate glass will not be etched by the Vari-Etch cream). The degree of etching can be varied to obtain different surface finishes by adjusting the water ratio. The cream solution can be diluted by adding an equal amount of water to the cream, (making 1/2 strength solution). The solution will no longer be a thick cream but will be excellent for dipping and clinging to pieces. Place a piece of glass into the diluted solution for 1/2 hour to a full hour and see the result. This will illustrate the variety of finishes you can achieve with Vari-Etch from His Glassworks, Inc.

#### EXPERIMENT!

As mentioned above, this solution will etch different glasses at different rates, sometimes leaving areas that will not be etched but other areas will be. This may be of particular interest to fusers and bead makers.

### Economy

Vari-Etch Cream can be used and reused for long periods of time. Additions of costly or dangerous acids are unnecessary and there are a myriad of solution strengths possible for a variety of finish effects.

### Storage

Vari-Etch should be stored in original container when possible. If other containers must be used, inspect those containers for structural integrity and periodically inspect all storage containers for signs of potential loss of integrity. Move contents to fresh containers if any cracks or areas of possible leakage are found. Store in cool, dry, well-ventilated area.

### Disposal

Vari-Etch solution is a weak acid (Ph 5.1) and can be neutralized by the addition of soda ash or baking soda (sodium bi-carbonate). To reduce the acidity and render the solution 'inactive' *slowly* mix  $\frac{3}{4}$  pound of baking soda into one quart of water and slowly add one quart of Vari-Etch Cream to the water to reduce the acidity to approximately 7.0, neutral. This process should be done in a large container, as some bubbling will occur. No hazardous fumes will be created during the neutralizing process, as only CO<sub>2</sub> (carbon dioxide) bubbling will occur. The material can

then be flushed down the drain with a large flow of water or disposed of in an appropriate manner. Please check and comply with your local regulations regarding the addition of fluoride ions to the waste water system in case of large disposal amounts.

## Safety First!

- Keep out of reach of children and pets.
- This mixture is not safe to drink.
- Do Not store this mixture in any container that may be mistaken for a food or drink container.
- Avoid contact with skin, eyes and mouth. Wash your hands thoroughly with a pumice type soap and warm water after use. Remove any clothing that has come in contact with the Vari-Etch solution and wash thoroughly.
- Application of a hand cream after exposure is recommended.
- Do not breathe dust from the dried cream mixture. Use in an area with adequate ventilation.
- Protective eyewear and gloves are recommended. A plastic or rubber style apron is also recommended if splashing may occur.
- *Do Not* reuse this container for anything other than the Vari-Etch cream.
- The active ingredient in Vari-Etch Frosting Cream is Ammonium Bifluoride (ABF), 31% by weight (see attached MSDS), 69% inert ingredients.
- The cream solution of Vari-Etch is Ph 5.1.
- No component of Vari-Etch Frosting Cream is listed as being carcinogenic.
- Vari-Etch Frosting Cream is Non-Flammable.