Removing Self-Adhesive Stamps from Paper — Our Readers Comment

In the October issue of *The American Philatelist* we published a guest column by Peter Butler, titled "It's Like Magic: Removing Self-Adhesive Stamps from Paper" (page 910). The column discussed the use of the solvent Bestine and an air freshener marketed as Pure Citrus to remove self-adhesive gum from U.S. postage stamps. A number of our readers (many of them chemists by profession) wrote to offer additional suggestions and cautions for the use of these materials.

Magic Indeed

Thank you for the article on Bestine (Peter Butler, "It's Like Magic: Removing Self-Adhesive Stamps from Paper, October AP, page 910). It is indeed "magic." I use a child's paint brush to "paint" the Bestine onto the paper and wait ten seconds, then I can peel the stamp off the paper. I dust with talcum and the stamp is ready to be mounted in my album. Thanks again.

Jim Clougherty
South Park, Pennsylvania

Fruitful Letter

I was delighted to see Peter Butler's article in the October AP and have the satisfaction of seeing that my letter to the editor of two years ago is bearing fruit. That being said, I want to offer two small quibbles with the article and add a comment on the "Pure Citrus" method. First of all, Peter says that "Bestine" contains heptane. That's not quite true — it doesn't contain heptane, it is heptane. There is no other ingredient. The second is his allegation that old-time watermark fluids contained benzene. In truth, they contained benzene — a very different chemical. Benzine (spelled with an "i") is an old name for a light hydrocarbon fraction that is chemically very similar to heptane (Bestine). It has none of the dangerous properties of benzene but because of the similarity in names, it was confused by non-chemists with benzene and such watermark fluids got a bad reputation and a bum rap.

Secondly, after reading Peter's article, I bought a can of "Pure Citrus" to give it a try. In recommending "Bestine," I had tested a number of substances and found that most of them, although they removed the stamp, contained material that did not evaporate and could thus leave a residue in the stamp. I have now tested "Pure Citrus" and found that, like "Bestine," it leaves no detectable residue. It does take a bit longer to evaporate but it appears to me to be every bit as good. The slower evaporation rate might even be an advantage in removing multiple stamps because I have found that the Bestine evaporates so fast that I have had to make multiple applications on large pieces. Now all that remains is for some enterprising individual to patent and package these substances, give the product a clever name, and reap financial rewards that Peter and I will never see.

William P. Winter
Silver Spring, Maryland

Orange Solvent

I just read Peter Butler's article about removing self-adhesive stamps. I am a dentist and we use a liquid called orange solvent, $9.29 a quart.

Rubbing a little on the back of an envelope with a Q-tip will release the stamp before you can turn the item over, and the sticky stuff is gone also.

Russell Bradley
Bryan, Texas

Heptane Not Recommended

I do not recommend the use of heptane — Bestine is 100% heptane — in a home or any enclosed area. Vaporized heptane and air form an explosive mixture, when proper portions are combined, which can be ignited with such a simple ignition source as a static electricity spark. Mineral spirits is a safer, equally effective, and less costly alternative.

Limonene (the d- or D- just tells a chemist about configuration and has nothing to do with adhesive-removal utility) should also be effective because of its chemical nature. An advantage for limonene is probably odor. A disadvantage is cost. Limonene is similar to mineral spirits in flammability characteristics and, therefore, safer to use than heptane. Both will burn but not as readily as heptane.

All three compounds are hydrocarbons and present similar health hazards. The flammability hazards are a difference. The preferred place to use any of these compounds is outside where there is plenty of ventilation and no ignition source.

If you have respiratory and/or dermatological problems, you should avoid all three. And all are about equally bad in eyes.

Basically, you are trying to separate a sandwich into its three components when you try to remove the adhesive. The stamp, the adhesive layer and the substrate, such as an envelope, are the three components. The adhesive is attached most firmly to the stamp, so the adhesive-to-envelope bond is broken most easily. Some solvolytic action may be involved, but it is probably more bond disruption than actually dissolving much adhesive.
I take a piece of paper towel roughly two inches square, hold it with tweezers and saturate it with mineral spirits. I then saturate the face of the stamp with mineral spirits from the towel and then saturate the inside of the envelope where the stamp is. I continue to rub mineral spirits from the towel onto the inside of the envelope until opaque white areas disappear, normally a matter of seconds. The stamp can now be removed from the envelope with stamp tongs if you use care.

I rub the back of the stamp with the mineral spirits saturated paper towel until I push all of the adhesive from the back of the stamp. You can use an additional piece of paper towel with additional mineral spirits if any adhesive remains. I take another fresh piece of paper towel to ensure that all traces of adhesive are removed. I allow the stamp to air dry, usually overnight if I am not in a hurry.

A stamp on cardboard will take longer since the mineral spirits must penetrate through the cardboard to the adhesive. Corrugated cardboard takes even longer, unless you removed the corrugated section before using mineral spirits.

I suggest treating probably no more than half-a-dozen stamps at one time because you will inevitably get mineral spirits on your fingers. And you should avoid prolonged and repeated contact with mineral spirits. You should wash affected skin areas promptly with soap-and-water and then rejuvenate your skin with hand lotion.

You can wear gloves, but you must use expensive, hydrocarbon-resistant gloves. The ordinary gloves that you might use for dishwashing or other types of water exposure are degraded by hydrocarbons and, therefore, provide no protection. They become a hazard instead.

The 1974 Christmas stamp, Scott 1552, discolored in twenty-three years or less because of adhesive degradation. Scott 2431 (1989) and 2475 (1990) that I have on cover still appear sound. Perhaps effective stabilizers were used in the pressure sensitive adhesives at that time.

However, I plan to continue to watch those issues for signs of adhesive degradation. But I would not hesitate to remove the adhesive completely from used copies of stamps that are not on cover just to be sure.

Not all solvents are flammable. The closest compound to a universal solvent is water. And carbon tetrachloride was used in home fire extinguishers many years ago.

Incidentally, I am a retired Ph.D. organic chemist. I have collected stamps since grade or high school and my interest continues.

John D. Alden
Delmar, New York

Don’t Soak

My experience with Bestine over a year ago suggests a word of warning regarding its use, as advocated in Peter Butler’s article. I have not tried his method of using just a few drops of Bestine; I simply submerged several test stamps in it, with disastrous results to the following issues:

- 3750 2¢ Navajo Necklace
- 3752 2¢ Navajo Necklace
- 3792a (25¢) Eagle
- 3980 39¢ Flag
- 4113–4116 Snowflake ATM
- 4192–4195 41¢ Disney
- 4215–4218 41¢ Christmas Knits ATM
- 4221 41¢ Chinese New Year
- 4224–4227 Scientists

A few examples are enclosed. On a more positive side, Bestine did not harm the current Forever issues 4126d and 4437, nor the Western Movie heroes. When trying Bestine, I would urge readers to test a disposable example of each issue first.

R. T. Stiehl
Waynesboro, Virginia

Sourcing Solvents

As a follow-up to Peter Butler’s article in the October 2010 issue of The American Philatelist, I thought I might provide some information regarding the two important solvent materials mentioned by Mr. Butler, in case others have problems locating and purchasing them (like myself).

1) Bestine is packaged by the Union Rubber Inc. of Trenton New Jersey 08606. The company’s telephone number is: 1-800-334-8219. It has a UPC code of: 8966500238. (I finally found it available at LEE’s Art Supply, on 57th Street, half a block west of Carnegie Hall, Manhattan, New York City.)

2) Pure Citrus is distributed by the Blue Magic Inc. of Conroe Texas 77307. Company telephone number is: 1-888-522-2746. It has a UPC Code of: 7954222201. This may help those not close to suppliers of these kinds of items.

Lawrence A. Daly
Newton, New Jersey

Talc Caution

It was a fascinating article on the use of Bestine and Pure Citrus by Peter Butler in the October 2010 issue of the AP. Actually, I had come across the technique four years ago and found that many organic solvents can be used — benzene, petroleum distillates, water — though I had not tried Pure Citrus or Bestine, the latter being heptane. A quite useful technique.

However, I wish to give a cautionary note with Talc and its use to eliminate the sticky residual acrylic copolymer adhesive that remains after the Bestine evaporates. Initially, the use of a small amount
of talc does indeed eliminate the stickiness, but when stamps are then hinged and mounted in an album and subject to the light but constant pressure that is on them within an album or a stockbook for that matter, the acrylic’s adhesiveness will return and the stamp will be stuck to the page or the stockbook pocket. I believe what happens is that the adhesive very slowly travels and spreads over the previously attached talc particles. The return of the stickiness is cumulative with time and not every stamp will display it, but most do and if it occurs, the result is obviously problematic. I have not been able to eliminate this problem other than using the technique also described in this article to remove the adhesive from the back of the stamp with a pencil eraser while the stamp is damp with the Bestine. Also, I would not recommend placing multiple self-adhesive stamps that had the talc treatment together in the same glassine or cellophane envelope — they will eventually all stick together like mint stamps with water-based gum in atmospheres of high humidify, especially if the envelopes are faced down and subject to pressure.

Dr. Reed E. Phillips
Glen Cove, New York

Try Mineral Spirits

In Peter Butler’s October article, he discusses the use of “Bestine” and other hydrocarbon solvents to remove self-adhesive stamps from paper. I’ve tried them and they work just as he wrote. A less expensive source of a suitable solvent is mineral spirits. This is a mixture of hydrocarbons having a boiling range or evaporation rate that is in the same range as the other mentioned products. Odorless mineral spirits is available at any paint store or paint department, at a very reasonable price. If you don’t want to buy a gallon at a time, try charcoal starter fluid. This is mineral spirits used to light charcoal briquettes.

As pointed out, these solvents are flammable and should only be used in a well-ventilated place. I place my stamps in a wide-mouth jar to soak and then go outside to peel the stamps from their paper backing. The stamps are placed face down on a clean paper towel to dry.

Max Statman P.E.
Judson,Texas

Safety Concerns

Outside of the hyperbole in the title, Mr. Butler’s article on freeing self-adhesive stamps was very interesting to this chemist. Unfortunately, there were two major omissions. SAFETY is critical. All of the listed effective compounds are flammable liquid hydrocarbons. They must be kept far away from flames and other hot objects, especially during the drying (evaporation) stage. And the vapors are heavier than air, so space heaters are a serious concern.

On the other hand, many other products should be equally effective. It looks like all you need is a colorless (so it won’t stain your stamps) hydrocarbon or hydrocarbon mixture. Lower boiling points (such as the 100ºC for heptane/Bestine) give faster drying but are more dangerous. Higher boiling points (such as the 176ºC for d-limonene/Pure Citrus) give slower drying but are less flammable. In-between products include pure compounds like toluene and xylene and mixtures like turpentine and VM&P naphtha. You should find a few such products at any store with a full selection of paints — whether arts & crafts or hardware.

Harry V. Ellis III
Chicago, Illinois

Highly Flammable

With reference to the Guest Editorial column by Peter Butler in the October issue, “Bestine” is highly flammable and toxic. Sometime it pays to check things out. See the Bestine Solvent & thinner Safety Data Sheet at the Ohio State University’s College of Biological Science Safety Page (www.biosci.ohio-state.edu/safety/MSDS/BESTINE%20SOLVENT%20%26%20THINNER.htm).

Jerry Jensen
Bloomington, Minnesota

Not News!

I just wanted to mention that an article on removing self-adhesive stamp gum using heptane appeared in the Springfield-Delco Stamp Club newsletter last January. Rather than promoting a specific product, i.e., “Bestine,” you could have pointed out that any brand of lighter fluid is also heptane or that odorless mineral spirits is essentially the same, is much cheaper, and works better.

G. Hulings Darby
(Retired Chemist)
Haverford, Pennsylvania

Free Stamp Trade Tips
From Philatelic Professionals
We want to help you save $100s, if not $1,000s over the years.
Learn from our mistakes!

Get free tips, visit us online at www.upastampauctions.co.uk