

# Important renovation products now available to Antiques and Collecting Industry

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The manufacturers of two renovation products have contacted us to assist them in marketing their products, described by their distributors as a metal cleaning liquid and a metal cleaning gel. These are used mainly for industrial purposes although they are well-known to the museum services and to those involved in the renovation of antiquities. The liquid is used by recovery ships for the immersion and cleaning of antiquities or relics etc that have been recovered from the sea. These products are also used in the jewellery trade for the cleaning of jewellery, particularly with ultrasound. It is my understanding that the intention is to not only introduce the liquid and the gel to our industry but also to the domestic market. The manufacturers are represented by their distributors *Conservation Resources Ltd* and *Tableau RPM* who present these products under their own branding names. The *Liquid* and *Gel* are both biological and non-hazardous products that clean and remove rust, verdigris and carbon from brass, gold, silver, glass, gilding etc that need renovated and preserved by either archaeological societies, museums and now potentially to the antiques and collecting industry. Both the *Gel* and *Liquid* have unique features in that they are non toxic, non flammable, low VOC (volatile organic compound) and recyclable, and can be disposed of through potable drainage systems, once exhausted.

The manufacturers explains: the application and use of these products is easy. The user simply applies the gel or immerses the item in the liquid from fifteen minutes up to eight hours, depending on the degree of contamination. With a little agitation with the hands the verdigris is removed and may be rinsed with fresh water to remove the *Gel* or *Liquid*. The objects may then be protected. These multi-use products easily remove limescale, carbon and corrosion without the use of aggressive chemical agents. They do not affect rubber, paint, textiles or enamel, nor do they attack or plate metal. They are easy to store and that there are no health concerns. *Tableau RPM's Metal Cleaning Gel* is available from [www.tableauproducts.com](http://www.tableauproducts.com) in Gel form. *Conservation Resource's Conservation Gel & Liquid* is available via their website at [www.conservationresources.com](http://www.conservationresources.com)

To give us more ideas of the products, they will remove rust, tarnish and verdigris from iron, copper, brass and aluminium and are non-toxic. The conservation liquid is designed to be used as an immersion product but should not be used where there are dissimilar metals present. Surfaces may then be treated with a suitable sealant, wax or polish. The conservation gel can be applied to a variety of metal surfaces, and has for many years been used most effectively by several collections in the cleaning of modern and historical weaponry, clocks and jewellery, tools and industrial equipment and heavy machinery. Both are non-classified as far as hazards go, though both may dry out unprotected skin after prolonged immersion or contact. The products have been used on everything from blunderbuss's to coins and jewellery and other archaeological finds. One fact of importance that the manufacturer's have made clear to *Antiques Info* is that the cleaning of items like jewellery and gold is speeded up by the use of an ultrasonic device and these are widely and cheaply available. They are also excellent on glass and remove limescale and verdigris. Carbon is also removed. The product will also clean bluing from guns if inadvertently applied. This could be deemed a benefit as it can clean gun powder residues and restore/remove bluing back to the original metal. It is noteworthy that they may be disposed of through normal drainage and potable water systems, provided that the item being cleaned does not itself contain hazardous waste.

## Uses/Application of the Liquid

We are told that it is best to allow the product to work in twenty minute cycles. Shake the container well before use. Very light rusting or tarnish may be removed in minutes. However with heavy contamination up to eight hours may be needed. It does not affect paint, rubber, pvc, fabrics, metals, wood, stone or chrome and is reusable until exhausted, which means it is recyclable and long lasting. Even with washing up liquid, it is best to wear gloves, as it can remove natural oils in the skin. This is a practical measure as residue being removed may be harmful. There are no health and safety issues. **Note:** Prolonged immersion in the liquid can cause the colour of some steels to turn slightly darker. However this will not effect the strength of the metal. The manufacturers tell us that their products should not be used on dissimilar metals.

## Uses/Application of the Gel

Shake the container well before use. Very light rusting or tarnish is removed in minutes. Apply a layer (2mm, 1/8in) of the gel to the surface, leave for 15 minutes and wash off with water. For heavier rust and oxide apply the gel and cover with plastic cling film or a polythene bag to retain the moisture. It works slowly and a period of eight hours may be necessary. For extended treatment frequent inspection is recommended because the gel can cause the colour of some steels to turn slightly darker. Just wash off a section for inspection. If rust or oxide is not completely removed retreat. The gel does not affect or harm paint, rubber, pvc, fabrics, metals, wood, stone or chrome.

## Antiques Info Tests

The manufacturers have provided us with the liquid and the gel for testing purposes. I filled a heavily limescaled plastic electric kettle (with a metal element) with the liquid and found that after about two hours both the plastic and metal parts were completely clean. After filtering away the residues I was able to return the liquid to its container for re-use. I was able to remove light limescaling from taps and shower heads with the gel which left the chrome finish shiny and new. I also immersed some heavily tarnished copper decimal coins and found that they took from one to two days to return them to a new looking, bright finish, although I must add that, whilst removing heavy marine encrustation from recovered coins will be necessary, collectors and dealers would not want collectors' coins to lose their patina. Whilst it is clear that limescale would be removed from glass I should also suggest that the liquid form should be excellent for cleaning out containers such as bottles and decanters, which sometimes have wine stains several hundred years old. We have yet to experiment on these. It is important to note that whilst the liquid will easily remove limescale from glass, it is frequently the case that the white cloudiness apparent in some antique drinking glasses and decanters is not a deposit as such on the glass, but rather an attack by the chemicals in water over time which have actually affected the surface of the glass. The accepted and only method that I know of for removing this fault is to send the vessels to a competent glass restorer who will skim the inside of these vessels with a hydrofluoric acid. I now have two months before our next edition and we hope to extend our tests to other materials and to also offer the liquid and the gel to a local restorer who deals extensively in metals and to await his report on their usefulness. Finally it is very important to say that the huge advantage that these cleaners possess is that they are harmless in use.