(The following was taken from http://www.doityourself.com/stry/brass)

Cleaning Brass - Care and Repair

True brass is an alloy of copper and zinc. It tends to oxidize (tarnish) quickly when exposed to air, which is a major reason why most brass is given a clear coating of lacquer to prevent this condition. Most conventional polishes such as "Brasso®," "Twinkle®," etc. coat the raw metal with a thin film of oil to help inhibit future tarnishing. Additionally, most metal polishes contain solvents and detergents to remove the tarnish, mild abrasives to polish the metal, and oils to act as a barrier between the raw metal and air.

Brass turns "black" when cleaning due to over-use and misuse of polish. The biggest challenge to the upkeep of most metals, including brass, is the removal and inhibition of tarnish. All substances, especially metals, oxidize when exposed to air. Once tarnish is removed, a chemical barrier should be created between the bare metal and the air to inhibit the process from re-occurring.

Many people over-use and flood metal surfaces with polishes believing that they are better protecting the surface. The more polish, the more protection. Wrong assumption. More polish creates a smudging problem since fingerprints (human body oils) "dissolve" the solvency of the metal polish. Additionally, too much polish may discolor the surface. Only a trace amount creating a *thin* film should be applied. Therefore, an adequate amount of metal polish should be applied and spread out an amount on an absorbent rag. Then, let the rag dry out for a minimum of 24 hours before placement onto most metals. Apply this trace amount of polish with the grain of the brass with one hand while buffing it out in a rapid motion (creating friction) with the other hand. This burnishing action will harden the polish (like "spit shining" a shoe) and create a surface far more difficult to smudge or discolor.

When dealing with "raw" brass instead of finished lacquered brass, the reaction between raw metal and chemicals can create the condition. The care of most metals is a two step process:

1. **Cleaning (for light soils):** The use of isopropyl (rubbing alcohol) applied with the sponge side of a light-duty, "white-padded" scrubbing sponge with the grain of the door. In the event of tougher scuff marks, flip over sponge and gently agitate with the grain of the metal with the white scrub pad.
   For heavier soils: Dampen sponge side with water, and apply a light scouring low abrasion creme onto it. Work product into sponge, and then stroke it onto your door with the grain. Once completed, wipe surface thoroughly clean with a clean, soft rag. Once surface is cleaned, then go to the next step.
2. **Polishing:** One of the best tools which provides just the right amount of oil onto metal is a "yellow" treated dust cloth. Wipe down brass with this cloth and then buff it dry with a soft, cotton cloth. This trace amount of oil in the cloth should not smear or discolor, especially after buffing.

Lacquering can be done at home, but all old lacquer must be removed first, and the surface completely clean (no fingerprints or cleaner on it) before spraying the lacquer on evenly in multiple thin coats. It is hard to do well. Keep decorative items dusted and clean. Wash in sudsy, lukewarm water, rinse and dry. Never use hot water on lacquered items as it loosens the lacquer; do not polish them or soak them in water.

Olive Oil. Brass will look brighter and require less polishing if rubbed with a cloth moistened with olive oil after each polishing. Olive oil retards tarnish.

Tarnished Brass

Unlacquered brass tarnishes when exposed to air. A weekly wiping with a little liquid ammonia on a soft cloth will help keep unlacquered brass shiny. Use a commercial cleaner (available in grocery or hardware stores) or a homemade cleaner (below) to remove tarnish. On antique brass, test the cleaning product to be sure of obtaining the desired effect. Some methods not only clean tarnish but also remove the mellow coloring of age that is desirable on old drawer pulls and other accessories.

To polish antique brass pieces, wash in hot, soapy water to remove grime, wax, etc. Rinse and dry. Moisten a soft cloth with boiled linseed oil and rub on the brass surface until all the dirt and grease have been removed. Polish with a soft cloth. Very old brass items, especially if in poor condition, require special care. Consult museum experts for advice. To polish for a soft finish: wash in hot, soapy water, rinse and dry. Make a paste of whiting and boiled linseed oil. Apply with a soft cloth and rub to remove tarnish. Wipe off excess paste and polish with a clean cloth.

<u>To remove heavy tarnish, difficult stains and corrosion:</u> wash in hot, soapy water or a weak ammonia and water solution and rinse. Dampen a soft cloth in hot vinegar, then dip in table salt and rub the brass, or make a paste of flour, salt and vinegar. You may need several applications. When the item is clean, wash in hot, soapy water, rinse and dry thoroughly, then polish with a cloth moistened with lemon oil. If preferred, dip a slice of fresh lemon into table salt and rub over the corroded area. Wash, rinse and dry carefully.