



# Ultrex SO 4

An immersion oxidizing material for copper-based alloys, white metal, tin-lead alloys and silver.

Ultrex SO 4 is a concentrated, mildly acidic, non-sulfide containing liquid material formulated to produce an oxidized finish on a variety of base metals by simple immersion at room temperature. By varying the operating concentration of the Ultrex SO 4, a range of color tones, from brown to purple, to gray black, can be obtained. These colors may be obtained by immersion of the parts or by wiping the Ultrex SO 4 onto the parts to be oxidized. The tone and adhesion of the Ultrex SO 4 immersion deposit will also be influenced by the base metal being treated. The most uniform and adherent finishes will be produced on thoroughly clean solid brass, copper, or silver. Plated parts can also be treated in the Ultrex SO 4 solution provided the plated coating is of enough thickness. To obtain uniform finishes on plated parts, the plated deposit should be relatively uniform.

The surface finish produced by the Ultrex SO 4 solution is extremely thin and can readily be obtained by tumbling, steel wool wiping, scratch brushing or mechanical polishing. Unique and interesting "antiqued" and "highlighted" finishes are be produced in this matter.

Applications for the Ultrex SO 4 solution include antiquing for Tiffany lamps, buttons, ornaments, hardware components, etc. Ultrex SO 4 can also be used to produce antique pewter effects, for color coding of parts and as a final uniform finish. Since the Ultrex SO 4 deposit is quite thin and has little corrosion resistance, parts treated with Ultrex SO 4 should be lacquered for maximum service.

## Operating Conditions

|                |  |
|----------------|--|
| Concentration  | 1-part Ultrex SO:4-8 parts water   |
| Temperature    | 75°F – 90°F  |
| Immersion Time | 30 sec – 3 min depending on concentration and tone desired                                     |
| Equipment      | Plastic, fiberglass IX rubber-lined tanks  |
| Control        | Dip may be controlled by small additions (1-2 fluid ounces/Gal) desired of concentrated Ultrex |



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|  | SO4. When the time interval to produce the desired tone becomes inordinately long and further additions of Ultrex SO 4 do not increase rate of color production, the bath is spent and should be replaced. |
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### Caution

If taken internally, Ultrex SO 4 is poisonous. Antidote: induce vomiting; when vomit fluid is clear, give 2 tablespoons of Epson salt or milk of magnesia in water. Get medical attention. Avoid contact with skin and eyes. Use protective clothing (rubber gloves) when handling this material. In case of contact with skin, affected area should be thoroughly flushed with water for at least 15 minutes and obtain medical attention.

Avoid contact of Ultrex SO 4 with concentrated acids or oxidizing materials.

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