



Better Chemistry. **Better Business.**

ENE™ Black Immersion D 8

Product Code: 2300018
Revised Date: 10/03/2006

ENE™ Black Immersion D 8
An Immersion Oxidizing Material

ENE™ Black Immersion D 8 is a concentrated, mildly acidic, non-sulfide containing liquid composition formulated to produce colored finishes on copper based alloys, nickel and silver by simple immersion at room temperature. By varying the operating concentration of the **ENE™ Black Immersion D 8** and by varying the immersion time, a range of color tones from light brown, to brown and to black can be produced on copper based alloys. Black colors can be produced on nickel and silver by using concentrations of 25-50% by volume **ENE™ Black Immersion D 8** with water. The finish produced in the **ENE™ Black Immersion D 8** can be readily relieved with steel wool, scratch brushing, lea wheeling or by other mechanical means to produce a variety of “highlighted” or “antiqued” finishes. Coloring with a soft wheel of burnishing the parts in sawdust, corn meal or wood shells may allow for the production of uniformly toned finish. Application of a lacquer or oil coating on the finish will deepen and enhance the tones produced with the **ENE™ Black Immersion D 8** system.

Coatings produced with the **ENE™ Black Immersion D 8** solution are relatively thin, have little corrosion resistance and should be lacquered to afford maximum protection and service.

For successful application of the **ENE™ Black Immersion D 8**, it is necessary that the work surface, whether solid or plated, be uniform and clean. Conventional cleaning cycle can be used to clean the parts prior to treatment in the **ENE™ Black Immersion D 8** solution. Where pre-cleaning is inadequate or where the initial work surface is blotchy or non-uniform, the quality of the “take” of the **ENE™ Black Immersion D 8** may be inferior in terms of uniformity of color or adherence. Chromates or other anti-tarnish type dips should not be used prior to application of the **ENE™ Black Immersion D 8** as they may interfere with the ability of the **ENE™ Black Immersion D 8** to oxidize properly.

OPERATING CONDITIONS

- Concentration.....5-50% by volume. More dilute solution produce light tones.
For oxidizing nickel and silver, 25-50% by volume.
- Temperature....70 to 90 °F
- Immersion Time.....30 seconds to 3 minutes, depending on concentration and tone desired.
- Equipment.....Plastic or fiberglass tanks.



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CONTROLS

Dip may be controlled by small additions (1-2 fluid ounces/gallons) of concentrated **ENE™ Black Immersion D 8** solution. Additions should be made when the prepared solution slows down or does not develop satisfactory color. Solutions of **ENE™ Black Immersion D 8** may be filtered to remove accumulated suspended material and to clarify the solution, should this be necessary. The life of the **ENE™ Black Immersion D 8** solution is almost indefinite and maintenance additions of the **ENE™ Black Immersion D 8** concentrate should be adequate to provide consistent work quality. However, conditions may arise because of excessive carry-in of contaminants, so that the performance of the **ENE™ Black Immersion D 8** solution cannot be restored by additions of concentrate. At this point, the **ENE™ Black Immersion D 8** solution may require complete replacement.

WASTE DISPOSAL

Spent **ENE™ Black Immersion D 8** solutions and effluents can be treated by reducing the soluble Selenium compounds to elemental Selenium. Complete procedures are available on request.

CAUTION

ENE™ Black Immersion D 8 solutions contain soluble Selenium compounds. Solutions of **ENE™ Black Immersion D 8** should not be overheated since the vapors are toxic. If taken internally, **ENE™ Black Immersion D 8** in large dosages may be poisonous.

Use **ENE™ Black Immersion D 8** solution only with adequate ventilation. Avoid contact with skin and eyes. Use protective clothing when handling this material. In case of contact with skin, affected area should be thoroughly flushed with water; for eyes, flush with clean water for at least 15 minutes and obtain medical attention.

Avoid contact of **ENE™ Black Immersion D 8** with concentrated acids or oxidizing materials.

WARRANTY

THE QUALITY OF THIS PRODUCT IS GUARANTEED ON SHIPMENT FROM OUR PLANT. IF THE USE RECOMMENDATIONS ARE FOLLOWED, DESIRED RESULTS WILL BE OBTAINED. SINCE THE USE OF OUR PRODUCTS IS BEYOND OUR CONTROL, NO GUARANTEE EXPRESSED OR IMPLIED IS MADE AS TO THE EFFECTS OF SUCH USE, OR THE RESULTS TO BE OBTAINED.