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### **Operating Instructions for Du-Lite's BLACK BATH PURIFIER For the elimination of Copper and Iron Oxide Contamination**

Du-Lite's Black Bath Purifier has been developed to overcome metal contamination problems in the black oxide bath.

Contamination can be caused by copper or red iron oxide in the solution and a bath which has become contaminated will produce work with an undesirable red color or red tint. This should not be confused with hardened, welded, ground or heat treated steel parts that have a rusty red appearance after being black oxide treated and rinsed. The parts appear rusty red because the operating temperature of the blackening bath is too high (298°F and above).

Black Bath Purifier overcomes these red effects by eliminating the contaminants in the blackening bath. The red color from copper contaminants disappears completely, while the red color caused by iron oxide buildup will rinse away in the final cold water rinse. Black Bath Purifier helps maintain a more active blackening bath and insures that these contaminants will not become a problem.

Cast metal parts, i.e. rifle and shotgun receivers, slides, frames, triggers and hammers which turn red in one to 14 days after black oxidizing contain too much silicone in the casting metal itself. The silicone is added at the factory to aid in the pouring of the metal. Black Bath Purifier cannot help eliminate red work in parts that contain too much silicone (more than 0.5%) in the casting metal itself. Parts with this condition are successfully processed by using Du-Lite's 3-0 Process for cast iron and stainless steel.

#### **Product Use:**

Calculate the number of gallons in your black oxide tank. Black Bath Purifier should be added to your tank on a weekly basis at a concentration of 1-2 oz per 10 gallons of blackening solution. Since excess Purifier can produce green effects on processed work, do not add more than the recommended amount per week.

When the quantity of Black Bath Purifier required for the bath has been determined, measure out and add the Purifier to the bath slowly, while stirring the bath to insure that the Purifier is completely mixed into the solution. It is most effective to do this at the end of the day when the bath is still at operating temperature. This is also the most convenient time to make any necessary additions of black oxide salts to the bath.

IMPORTANT! Product safety information can be found in Material Safety Data Sheets for each individual Du-Lite product. All personnel who may come into contact with these products through use or handling should read and familiarize themselves with these sheets.

**THE PRODUCTS MENTIONED IN THESE INSTRUCTIONS ARE FOR INDUSTRIAL USE ONLY**  
03/26/2013