

## ULTRA BLACK FLUX®

### ***GENERAL DESCRIPTION***

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Ultra Black Flux is a boron modified, water based active fluoride/borate-type flux in paste form, which has been specially formulated to give excellent adhesion when dipped or brushed on parts. It is recommended to use with filler metals that flow between 1050°F (565°C) - 1800°F (982°C) and specifically formulated to ensure a creamy consistency. The flux provides excellent protection of parts up to 1800°F (982°C).

### ***PRODUCT APPLICATION***

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Ultra Black Flux is primarily used as a general purpose brazing flux in brazing applications involving brazing of steel, stainless steel, copper, copper alloys, nickel, and nickel alloys. It is not recommended to use in aluminum bronze or other aluminum alloy brazing applications. Ultra Black Flux is suitable for use with most heating methods including torch, induction or furnace. This product exhibits excellent adhesion, oxide absorbing capabilities, and less spattering during the brazing process.

If stored for a long period of time some separation within the flux may occur. In such case stir the flux up until proper consistency is restored. Ultra Black Flux readily dilutes to *slurry* consistency (as defined by AWS A5.31M/A5.31 Specification for Fluxes for Brazing and Braze Welding) using **60cc of cold or hot water per pound of flux**. Care must be exercised when adding water as the concentration of fluxing salts is reduced and spitting may increase. Water concentration of original product is 35% by weight of flux.

### ***POST CLEANING***

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This product is corrosive and a post braze cleaning or rinsing operation is required. The flux residue is easily dissolved in hot water at temperatures of 120°F (50°C) or higher.

### ***WARRANTY & STORAGE***

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Lucas-Milhaupt, Inc. warrants their Water Based Fluxes for twelve months from the date of shipment if stored in the original, unopened container. Optimal storage conditions would be 65°F (18°C) - 75°F (24°C), cool and dry.

Twelve months should not be interpreted as the shelf or useful life of the product unless actual test results indicate unsatisfactory performance for the intended application. Flux beyond the warranty may be reconstituted to a working consistency by warming in a water bath and or by additions of distilled or de-ionized warm water.

Flux may require mixing, dilution or warming to regain its normal consistency prior to use. Flux, when placed on a U.S. standard 40 mesh (425 micron) sieve conforming to ASTM E11 and worked lightly with a brush shall pass completely through the sieve. If the flux has partially coagulated in the container, the flux may, before conducting the test, be warmed in a water bath until it has returned to its normal consistency.

### ***AVAILABLE PACKAGING***

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Ultra Black Flux is available in a variety of packaging options including 1/2 lb, 1 lb, 5 lb, 30 lb, and 65 lb containers.

## ***SPECIFICATIONS***

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Ultra Black Flux conforms to the following specifications:

- American Welding Society (AWS) A5.31 FB3C
- Society of Automotive Engineers (SAE) / AMS 3411
- Federal Specification O-F-499D, Type B

## ***APPLICABLE PRODUCT CODE(S)***

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The applicable Lucas-Milhaupt product code(s) for this technical data sheet: 82-157, 73-511, 73-512, 73-513, 73-515, 73-516, 73-517.

## ***SAFETY INFORMATION***

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The operation and maintenance of brazing equipment or facility should conform to the provisions of American National Standard (ANSI) Z49.1, "Safety in Welding and Cutting". For more complete information refer to the Material Safety Data Sheet for Ultra Black Flux.

## ***WARRANTY CLAUSE***

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