

## Handy Flo® 712 DF 712

### ***GENERAL DESCRIPTION***

---

Handy Flo DF 712 is an aggressive, chloride based flux system designed for use with aluminum brazing filler metals for joining of 1000, 3000, 6000 and some 5000 series aluminum alloys in an open air brazing processes. This dispensable flux consists of an exclusive combination of fluoride and chloride salts and an inert binding agent to hold it in suspension. This product is corrosive and the flux residue must be removed from the assembly following the brazing operation.

Handy Flo DF 712 removes surface oxides that form on aluminum, which allows for excellent melt and flow characteristics of the filler metal. This product has been formulated to provide consistent dispensing features from either manual or automatic dispensing equipment.

Some of the performance advantages of Handy Flo DF 712 include:

- Low to no spatter characteristics
- Reduced flux consumption through controlled application of the product
- Proper post braze cleaning or rinsing with water will eliminate acid post clean-up procedures

This flux system is recommended for use in an open air or torch heating applications. It does not require drying prior to brazing and will remain in place and not flake off or blow off the assemblies during the heating cycle of the brazing process.

The Handy Flo DF 712 is available as dispensable flux formulation only.

### ***PRODUCT APPLICATION***

---

Handy Flo DF 712 becomes fully molten and active by 1000°F (540°C). It is recommended for use with AL 716 (American Welding Society (AWS) A5.8/A5.8M BAlSi-3), AL 718 (AWS A5.8/A5.8M BAlSi-4) and AL 719 braze filler metals in a ring or wire form.

### ***BRAZING CHARACTERISTICS***

---

Handy Flo DF 712 will exhibit restrictive slump characteristics and can be used on vertical joints. This product is corrosive and a post-braze cleaning or rinsing operation is required.

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

---

Lucas-Milhaupt, Inc. warrants their Dispensable Flux products for 90 days 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), clean and dry. It is recommended that the dispensable flux products are stored away from direct heat. Dispensable fluxes may require mixing to regain a homogenous mixture before application.

The 90 day warranty should not be interpreted as the shelf or useful life of the product. Dispensable fluxes may be used well beyond the 90 day warranty, unless customer testing or production results indicate unsatisfactory performance of the product.

### ***AVAILABLE PACKAGING***

---

Handy Flo and DF products are available in various size syringes, jars and cartridges. Dispensable flux may also be obtained in large containers prepackaged for immediate pneumatic dispensing operations.

## ***SPECIFICATIONS***

---

Handy Flo 712 conforms to the following specifications: N/A

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

---

The applicable Lucas-Milhaupt product code(s) for this technical data sheet: 83-712.

## ***SAFETY INFORMATION***

---

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 Handy Flo 712/DF 712.

## ***WARRANTY CLAUSE***

---

Lucas-Milhaupt, Inc. believes the information contained herein to be reliable. However, the information is given by Lucas-Milhaupt, Inc. without charge and the user shall use such information at its own discretion and risk. This information is provided on an "AS IS" AND "AS AVAILABLE" basis and Lucas-Milhaupt, Inc. specifically disclaims warranties of any kind, either express or implied, including, but not limited to, warranties of title or implied warranties of merchantability or fitness for a particular purpose. No oral advice or written or electronically delivered information given by Lucas-Milhaupt, Inc. or any of its officers, directors, employees, or agents shall create any warranty. Lucas-Milhaupt, Inc. assumes no responsibility for results obtained or damages incurred from the use of such information in whole or in part.