

## Post Braze Cleaner - Flux Removal Solution

### ***GENERAL DESCRIPTION***

---

Lucas-Milhaupt, Inc. now offers a product which quickly and easily dissolves flux and heat scale residues that form on ferrous and non-ferrous metals during the brazing process. Post Braze Cleaner is a dry compound, that when combined with water completely removes the glasslike residue that forms on brazed assemblies. An advantage of Post Braze Cleaner over traditional acids and pickling solutions includes its ability to eliminate the mixing and handling problems of using strong acids. Also, while Post Braze Cleaner is acidic, it will not burn skin or clothes, and is safe and easy to use.

### ***PRODUCT APPLICATION***

---

Post Braze Cleaner is used in the concentration of 8-10 ounces per gallon of water. A solution cleaner should be maintained at a pH of 0.5 to 2.5. This evaluation can be made with the use of litmus paper. When the pH value rises above the prescribed level, additions of powder to the solution should be made. The concentrations and measurements of powder are not critical. If too much powder is added, the solution will be active for a longer period of time, while if too little powder is added, it will require additions sooner. The most significant indicator of solution activity other than pH is the time required to do a job. If a brazed assembly would normally take 60 seconds to be completely cleaned in an active solution but requires 100 seconds to do the same job, it is usually a good indication that the solution has weakened and requires additional powder.

### ***FLUX REMOVAL***

---

In order for a solution of this material to work effectively, there must be intimate contact with the flux and scale, and the solution must be heated to a temperature of 165°F (74°C) - 180°F (82°C). Heat can be introduced into a tank in a variety of ways. One way includes using a heated tank away from the brazing area. Cooled parts can be immersed for one to three minutes (or longer) depending upon the amount and accessibility of flux and heat scale residue. Another way is to use Post Braze Cleaner as a quench in the brazing production line. If you mix the Post Braze Cleaner using very hot tap water, the hot metal from the brazed assemblies should be able to maintain adequate heat for the solution all day.

### ***RINSE PROCEDURE***

---

Regardless of the application method, all materials following immersion in Post Braze Cleaner should be rinsed in cold water. Materials that would normally rust or discolor under any or all working conditions will frequently show the effects of the Post Braze Cleaner solution or any other acid cleaner. The lower pH from acid on the surface of some metals may expedite the oxidation process. Again, a thorough water rinsing should control most situations, however where a problem persists, contact Lucas-Milhaupt, Inc. for additional solutions.

### ***CONTAINERS, TANKS AND PUMPS***

---

The materials used to contain a solution of Post Braze Cleaner must withstand the effects of a low pH plus the constant daily heating and cooling of this solution. A stainless steel (i.e. Grade 316) tank, components and pump for re-circulation if necessary is recommended. Monel, lead or other acid resistant tanks are also acceptable. The most common of the latter is a polyethylene liner for a tank or a simple inexpensive garbage pail for smaller quantities. Into these containers a stainless steel basket can be suspended to hold the brazed assemblies.

### ***DISPOSAL***

---

Dispose of unused or unusable product in accordance with applicable Federal, State/Provincial, and local regulations.

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

---

The applicable Lucas-Milhaupt product code(s) for this technical data sheet: 69-561.

## ***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 Post Braze Cleaner-Flux Removal Solution.

## ***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.