



**Technologies**

## **TECHNICAL INFORMATION**

### **JOHNSON'S B-118 ORGANIC SOLDERING FLUX**

#### **1. DESCRIPTION**

**Johnson's B-118 Organic Soldering Flux** is a concentrated organic flux which has many uses for manufacturing copper and brass heat exchangers. Especially good for dip soldering of heater cores because its aggressive nature pulls even high lead solders deep into the joint, yet leaves no corrosive residues in the water channels. It has been specially formulated to stop the green corrosion associated with zinc chloride type fluxes.

**Johnson's B-118 Organic Soldering Flux** is the best organic hand soldering flux we know of. When properly used it enable the repair soldering of new products and ends the problem of corrosion of these parts in storage.

#### **2. PROPERTIES**

Specific gravity as shipped is: 1.2 at 18°C.  
pH - < 1  
Appearance - Light yellow to amber colour.  
Odour - Slight organic odour.

#### **3. USAGE**

Hand Soldering: Either use as packaged or dilute with equal parts of water. Apply with spray, brush, swab or dip method.

Other Applications: May be diluted up to 10:1 for oven baking applications.

#### **4. HANDLING**

Since the flux contains free acid, store, mix and use in non-metallic containers only. Wear protective clothing and eye wear when handling the flux. Avoid mixing other chemicals with this flux.

#### **5. WASTE DISPOSAL**

Since local laws vary, we cannot make specific recommendations. This flux must be neutralised with soda ash or lime before disposal. Further treatment may be required to remove any metals which may have dissolved into the flux during use.

**Johnson's B-118 Organic Soldering Fluid** is used in the radiator repair industry for soldering new radiator kits, which will not be put into service right away.

Properly used, this flux solves the problem of green or blue-green corrosion which appears on radiators soldered with inorganic fluxes. **Johnson's B-118 Organic Soldering Flux** is the only organic flux we know of which will hold up to the heat from torch soldering. Its aggressive nature pulls even high lead solders deep into the joint. Then, when full soldering temperature is reached, any **Johnson's B-118 Organic Soldering Flux** residues which were not already vapourised are rendered inactive. This is excellent for soldering radiator kits because it does such a fine job and it ends the problem of corrosion in storage.

**Johnson's B-118 Organic Soldering Flux** was developed for radiator manufacturers for soldering new metal. Excellent results are achieved for core backing at 10:1 dilution, face dipping at 4:1 and for torch soldering at 1:1 mix. For almost two (2) years manufacturers have used **Johnson's B-118 Organic Soldering Flux** extensively for torch soldering and have experienced no corrosion problems of any kind.

Using **Johnson's B-118 Organic Soldering Flux** for torch soldering requires a slightly different technique than with inorganic fluxes. First, mix the flux with an equal part of clean water (1:1). For best results apply sparingly to both surfaces to be soldered. This flux is highly active at room temperature. As soon as you apply it, you will notice its remarkable wetting and cleaning effect.

Care should be taken not to burn away the flux too rapidly. Natural gas or propane and air torches will work, but oxyacetylene flames are not recommended. Occasionally flux may have to be reapplied to the heated metal. If this happens too frequently, adjust your flame setting slightly lower. **Johnson's B-118 Organic Soldering Flux** decomposes in the area of 290 – 320°C. You will find that with proper flame setting and the right fit-up (joint clearance) you will be able to move along the seam quickly on the first pass. If you have to go back for touch ups, apply more flux to that area.

Most important of all, any organic acid flux should be applied only to areas of the radiator which will be heated to full soldering temperature. When putting new tanks on a core apply flux only to the tank header seam. Any flux dribbled off the heater or down the tubes will remain active unless it is heated to full soldering temperature or washed out with water.

As with any soldering operation, the use of personal safety equipment is recommended; safety glasses or goggles, gloves and apron. Soldering should always be done in well ventilated areas.

#### DISCLAIMER

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