



# Technical Bulletin

**JOHNSON MANUFACTURING COMPANY**

Princeton, Iowa 52768-0096

## **JOHNSON'S VERSATIN POWDER**

**Part No. 20-70 Series**

### **DESCRIPTION:**

Johnson's VersaTin contains zinc-ammonium chloride crystals blended with high quality pure tin powder, to form a tinning compound that is very fast acting. One of its main uses is that of tinning cast iron and steel bearing shells prior to pouring molten babbitt. VersaTin may also be used to clean and tin other metals such as brass, bronze, copper, galvanized and some grades of stainless. At room temperature VersaTin seems rather mild, yet when heated it cleans aggressively and will even cut through dirt, paint and rust, to create a tightly tinned surface with the basis metal. Its residues are 100% water soluble and should be completely removed to prevent future corrosion of the workpiece. Hot water speeds residue removal.

### **PHYSICAL DATA:**

<b>Appearance</b>	<b>Grey Powder</b>
<b>pH, Water Solution</b>	<b>5.0 ± 1.0</b>
<b>Solubility in Water</b>	<b>65 %</b>

### **USAGE:**

VersaTin may be used dry, as shipped, or mixed with water to form a light slurry. To use dry, begin heating the metal and sprinkle VersaTin on hot surface. Tinning will begin to occur at 450 to 500 degrees F. Continue heating to 550 to 650 F, to spread the tin and promote a tight bond, using a fiberglass acid brush or stainless steel toothbrush. Do not heat above 750 F as the flux may char and freshly tinned surfaces may begin to oxidize. When used as a slurry, apply VersaTin before heating the metal to reduce oxidation and lessen spattering.

### **HANDLING:**

Wear protective clothing and eye wear when handling VersaTin. Use with adequate ventilation. Please refer to the *OSHA Material Safety Data Sheet* for additional information. Store, mix and use in non-metallic containers only. This product is hygroscopic and if the container is left open, it will absorb moisture from the air, which will lessen its effectiveness and it will become hard in the jar. The shelf life for unopened containers is one year from date of manufacture.

### **WASTE DISPOSAL:**

VersaTin slurry mixtures may require neutralization before disposal. Beyond this, we cannot make specific recommendations due to variations in local, state and federal regulations.



**TO ORDER CALL (800) 747-0030, FOR TECH SUPPORT CALL (563) 289-5123, TO SEND FAX (563) 289-3825**