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 MA6371	 MA6306	<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); background-color: #8B4513; color: white; padding: 5px; font-weight: bold; margin-right: 10px;">Key to Composition</div> <table border="0"> <tr><td>Al .....</td><td>Aluminum Oxide</td><td>.....</td><td>Al<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>B .....</td><td>Boric Acid</td><td>.....</td><td>B<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Ca .....</td><td>Calcium Carbonate</td><td>.....</td><td>CaO</td></tr> <tr><td>Co .....</td><td>Cobalt Oxide</td><td>.....</td><td>CoO</td></tr> <tr><td>Cr .....</td><td>Chromium Oxide</td><td>.....</td><td>Cr<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Fe .....</td><td>Iron Oxide</td><td>.....</td><td>Fe<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Mn .....</td><td>Manganese Dioxide</td><td>.....</td><td>MnO<sub>2</sub></td></tr> <tr><td>Ni .....</td><td>Nickel Oxide</td><td>.....</td><td>NiO</td></tr> <tr><td>Pr .....</td><td>Praseodymium Oxide</td><td>.....</td><td>Pr<sub>6</sub>O<sub>11</sub></td></tr> <tr><td>Sb .....</td><td>Antimony Oxide</td><td>.....</td><td>Sb<sub>2</sub>O<sub>3</sub></td></tr> <tr><td>Si .....</td><td>Silicon Dioxide</td><td>.....</td><td>SiO<sub>2</sub></td></tr> <tr><td>Sn .....</td><td>Tin Dioxide</td><td>.....</td><td>SnO<sub>2</sub></td></tr> <tr><td>Ti .....</td><td>Titanium Dioxide</td><td>.....</td><td>TiO<sub>2</sub></td></tr> <tr><td>V .....</td><td>Vanadium</td><td>.....</td><td>V<sub>2</sub>O<sub>5</sub></td></tr> <tr><td>Zn .....</td><td>Zinc Oxide</td><td>.....</td><td>ZnO</td></tr> <tr><td>Zr .....</td><td>Zirconium Dioxide</td><td>.....</td><td>ZrO<sub>2</sub></td></tr> </table> </div>			Al .....	Aluminum Oxide	.....	Al <sub>2</sub> O <sub>3</sub>	B .....	Boric Acid	.....	B <sub>2</sub> O <sub>3</sub>	Ca .....	Calcium Carbonate	.....	CaO	Co .....	Cobalt Oxide	.....	CoO	Cr .....	Chromium Oxide	.....	Cr <sub>2</sub> O <sub>3</sub>	Fe .....	Iron Oxide	.....	Fe <sub>2</sub> O <sub>3</sub>	Mn .....	Manganese Dioxide	.....	MnO <sub>2</sub>	Ni .....	Nickel Oxide	.....	NiO	Pr .....	Praseodymium Oxide	.....	Pr <sub>6</sub> O <sub>11</sub>	Sb .....	Antimony Oxide	.....	Sb <sub>2</sub> O <sub>3</sub>	Si .....	Silicon Dioxide	.....	SiO <sub>2</sub>	Sn .....	Tin Dioxide	.....	SnO <sub>2</sub>	Ti .....	Titanium Dioxide	.....	TiO <sub>2</sub>	V .....	Vanadium	.....	V <sub>2</sub> O <sub>5</sub>	Zn .....	Zinc Oxide	.....	ZnO	Zr .....	Zirconium Dioxide	.....	ZrO <sub>2</sub>
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Using Mason Stains

- To stain clay, or for brushwork over or under glaze:  
For Δ10: mix 1:1 stain to Custer Feldspar or Unispar.  
For Δ4-6: mix 1:1 stain to Nepheline Syenite.  
For Δ06: mix 1:1 stain to Ferro Frit 3124 or Frit 3110.
- When making your own glazes, liquid glaze should reach consistency of whole milk. Add Mason Stains by weight as a percentage of dry ingredients. Use .5% to 3% for Green, Black & Blue, or 2% to 8% for Yellow, Pink and Purple.
- When mixing your own clay, add Mason Stains by weight as a percentage of dry ingredients: 2% to 5% for Green, Blue or Black, or 5% to 10% for Yellow, Pink, Purple.
- Engobes and underglazes should reach consistency of cream. Add Mason Stains by weight as a percentage of dry ingredients: 3% to 10% for Green, Blue & Black, or 8% to 15% for Yellow, Pink and Purple.
- When coloring moist clay, allow for 30% water, then add Mason Stains by weight as a percentage of the estimated dry ingredients (ie, 17½lbs dry stain out of 25lbs total wet clay weight).

Reference Notes

- Can be used as porcelain body stain at Δ6 or Δ10
- Max firing limit 2156° F (1180° C)
- Max firing limit 2390° F (1310° C)
- Max firing limit 1976° F (1080° C)
- DO NOT USE ZINC in glaze
- Stain may be used with or without zinc
- Zinc not necessary, but gives better results
- Best results with NO zinc
- Glaze must contain 6.7% - 8.4% calcium oxide

\* **Zinc-free glazes** should generally not contain magnesium oxide. Some stain colors containing zinc should be used in glazes without additional zinc. The zinc-free oxide can change the glaze's fired color.

\* **Calcium oxide** content (in calcium carbonate) should be 12-15% for best color. Adding the molecular equivalent of calcium oxide with Wollastonite often gives better uniformity, but you should factor in Wollastonite's higher silica content.