



#### CHEMICAL COMPOSITION

**MATERIAL:** Grade A Tin Star Anode  
**FORM/SHAPE:** 3" diameter star x length  
**ASTM SPEC. #:** ASTM B339-00  
**MISC:** 12 or 16 point stars- d&t 3/8" x 16

		Min.	Max.
Sn	Tin -----	99.952	
Sb	Antimony ----		<0.0195
Cu	Copper -----		<0.0042
Pb	Lead -----		<0.0143
Fe	Iron -----		<0.0011
As	Arsenic -----		<0.0009
Bi	Bismuth -----		<0.0019
Zn	Zinc -----		<0.0004
Al	Aluminum ----		<0.0004
Cd	Cadmium ----		<0.0002
Ni	Nickel -----		<0.0001
Ag	Silver -----		<0.0002

\*\* The above lab report is an actual analysis of tin received

#### PACKAGING OPTIONS

- Extruded star anodes- 3" dia. x length
- Available in 12 point or 16 point
- Standard drill & tap- 3/8" x 16 thread
- Pallets- securely banded, shrink wrapped
- Custom or additional holes are available

#### CERTIFICATION

- Only 100% virgin metals in our process
- Chemical analysis provided w/shipment
- Lab service available for pot samples

SPEC NO: NT Grade A Tin Anode  
Rev: 3 Date: 2015  
Approved By:  
Ben Etherington; VP, Operations

#### PHYSICAL PROPERTIES

Melting Temp (°F) - 450  
Melting Temp (°C) - 232  
Pouring Temperature (°F) - 575-625  
Boiling Point (°F) - 4118  
Boiling Point (°C) - 2270  
Density (lbs/in<sup>3</sup>) - 0.264  
Specific Gravity (g/m<sup>3</sup>) - 7.30  
Brinell Hardness - 4.6  
Tensile Strength (tons./in.<sup>2</sup>) - 0.94

Please direct your sales and technical inquires to (215) 821-8461

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Quality Since 1789

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