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MATERIAL SAFETY DATA SHEET

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90% Tin, 10% Lead ALLOY

ANODES, INGOT, BAR,
WIRE

ASTM B32/QQS571

SECTION 1: IDENTIFICATION

Furnished by: Grant Manufacturing & Alloying, Inc
200-C Furnace Street
Birdsboro, Pa 19508

Effective Date: 01/01/01

Emergency Phone Number: 610-404-1380

Person to Contact: David Charest

SECTION 2: CONSTITUENTS

| CHEMICAL | CAS# | %WT | CARCINOGEN | TLV |
|-----------------|-----------|----------|------------|------------------------------------|
| <i>TIN</i> | 7440-31-5 | 90.0 | NO | 2mg/cu m ACGIH |
| <i>LEAD</i> | 7439-92-1 | 10.0 | NO | 0.15mg/cu ACGIH OSHA TWA 0.05mg |
| <i>ANTIMONY</i> | 7440-36-0 | 0.50 MAX | NO | 0.5mg/cu ACGIH/OSHA PEL |

SECTION 3: PHYSICAL DATA

Melting Point 360-620 degrees

Boiling Point n/ap

Vapor Pressure not volatile

Vapor Density not volatile

Solubility in Water nil

Apperance/Color silver to gray

Specific Gravity, 68-77 F 7-11 (approx), depending on alloy

Odor none

% Volatile nil

pH n/ap

Evaporation Rate n/ap

SECTION 4: FIRE AND EXPLOSION HAZARD DATA

| | |
|-------------------------|---|
| Flash Point | not flammable |
| Flammable Limits | n/ap |
| Extinguishing Methods | n/ap |
| Fire Fighting Equipment | If metal is present where there is fire, wear self contained breathing device . in case lead fumes |

SECTION 5: REACTIVITY DATA

| | |
|--------------------------|---|
| Stability | stable |
| Conditions to Avoid | n/ap |
| Hazardous Polymerization | will not occur |
| Incompatibility | strong acids, reducing agents, halogens and oxidizers |
| Hazardous Decomposition | lead fumes at high temperatures (above 750 F) |

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SECTION 6: SPILL, LEAK AND DISPOSAL PROCEDURES

| | |
|----------------------------|---|
| Actions to take for spills | allow to solidify, collect and place in sealed drum |
| Disposal Method | return to supplier |

SECTION 7: HEALTH HAZARD INFORMATION

| | |
|-----------------|--|
| Eye | dust or fumes will be an irritant |
| Skin Contact | not a route of entry to the body |
| Skin Absorption | not a route of entry to the body |
| Ingestion | Ingestion of lead dust or fumes must be avoided. Lead is toxic and cumulative, affecting the kidneys and nervous system. Symptoms will include anemia, insomnia, |

weakness, irritability,
constipation and stomach
pains.

Tin is not regarded as toxic, but excessive exposure can cause fever,
nausea, diarrhea
and stomach
cramps.

Antimony is toxic and dust and fumes can cause nasal septal ulceration
and stomach lining
irritation.

Section 8: First Aid Procedures

Eyes:

Flush thoroughly with water and call a
physician.

Skin:

Wash thoroughly with soap and water.

Ingestion:

Induce vomiting if person is conscious. Call a
physician.

Inhalation:

Remove to fresh air. Call a physician.

Note to Physician:

Check for effects of antimony

Section 9: Special Handling Information

Ventilation:

Required to maintain TLV's

Respiratory Protection:

Fume Mask required.

Eye Protection:

Wear protective goggles.

Skin Protection:

Use protective gloves when handling material.

Other:

N/A

Section 10: Special Precautions & Additional Information

Storage:

Store metal in clean dry area, away from heat
and chemicals that might react with the
material.

Section 11: Hazard Rating

Based on NFPA and NPCA Systems

Health-1

Flammability-0

Reactivity-0

Special Hazard-W

END: