

Les « Appels à tous » sont une compilation de réponses à une problématique particulière et reflètent l'opinion de représentants d'entreprises membres. Leur contenu n'engage d'aucune façon la responsabilité de PRÉVIBOIS et ne remplace pas l'obligation de consulter les exigences légales applicables ou les directives des fabricants d'équipements.

## Problématique

Une entreprise utilise le Babbitt #7 dans leur atelier d'affûtage. Or, ce produit est possiblement cancérigène et elle **souhaite le remplacer par un produit moins dangereux.**

### QUESTION 1

**Quel type d'alliage utilisez-vous dans votre atelier d'affûtage (Babbitt ou autre)?**

#### Réponses

- Entreprise A** Le produit qui est autorisé est le Babbitt no 2
- Entreprise B** Babbitt (alliage sans plomb GHS 005)
- Entreprise C** Le produit que l'on utilise c'est du Babbitt no 2 (*voir annexe 1*)
- Entreprise D** –
- Entreprise E** –

### QUESTION 2

**Connaissez-vous d'autres produits moins toxiques qui pourraient substituer les Babbitt contenant du plomb?**

#### Réponses

- Entreprise A** Prendre info de votre fournisseur
- Entreprise B** Selon nos limeurs, pour le moment, non...
- Entreprise C** –
- Entreprise D** Notre maître-limeur me dit que la compagnie DK SPEC de Bernières a développé un système pour éliminer le Babbitt. Il s'agit d'un système mécanique et il s'applique à la plupart des Babbitt mais pas à tous.
- Entreprise E** À la limerie, nous avons substitué la Babbitt (traditionnelle) par une autre sorte ne contenant pas de plomb (*voir annexe 2*). Ce produit est approuvé par le CIUSSS.

MATERIAL SAFETY DATA SHEET  
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TIN / ANTIMONY / COPPER / NICKEL ✓  
(GRADE 2 NICKEL BABBITT) ✓

**SECTION 1 - IDENTIFICATION**

Furnished by: Grant Manufacturing & Alloying  
200-C Furnace Street  
P. O. Box 69  
Birdsboro, PA 19508

Effective Date: 1/1/2005  
Emergency Phone: (800) 496-4113  
Person to Contact: Daryl Williams

**SECTION 2 - CONSTITUENTS**

Chemical	CAS	%WT	Carcinogen	TLV
Tin	7440-31-5	88-90%	No	2mg/cu m ACGIH
Copper	7440-50-8	3-4%	No	0.2mg/cu ACGIH/OSHA TWA 0.05mg
Antimony	7440-36-0	7-8%	No	0.5mg/cu m ACGIH/OSHA PEL
Nickel	7440-02-0	.35-.50%	No	1mg/cu m ACGIH

**SECTION 3 - PHYSICAL DATA**

Melting Point 466-669 ° F  
Boiling Point N/A  
Vapor Pressure Not volatile  
Vapor Density Not volatile  
Solubility in Water Nil  
Appearance / Color Silver to gray color  
Specific Gravity 7.39  
Odor None  
% Volatile Nil  
pH N/A  
Evaporation Rate (nBuAc=1) N/A

**SECTION 4 - FIRE AND EXPLOSION HAZARD DATA**

Flash Point Not flammable  
Flammable Limits N/A  
Extinguishing Methods Class D, dry type  
Unusual Hazards Finely divided tin dust may form explosive mixtures with air  
Special Fire Precautions Use NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing if involved in fire

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TIN / ANTIMONY / COPPER / NICKEL  
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#### SECTION 5 - REACTIVITY DATA

Stability	Stable
Conditions to Avoid	N/A
Hazardous Polymerization	Will not occur
Incompatibility	Strong acids, reducing agents, halogens and oxidizers
Hazardous Decomposition	Strong acids or bases or at high temperatures, oxidation fumes may be evolved

#### SECTION 6 - SPILL, LEAK AND DISPOSAL PROCEDURES

Action to Take for Spills	Allow to solidify, collect and place in sealed drums
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	Practice good personal hygiene. Avoid any inhalation or ingestion. Wash thoroughly before eating or smoking. Do not wear contaminated clothing home or use compressed air to blow off dusty clothes. Tin is not regarded as toxic but excessive exposure may cause fever, nausea, diarrhea and stomach cramping.
Inhalation	Inhalation of excessive dust and/or fumes should be avoided.

#### SECTION 8 - FIRST AID PROCEDURES

Eyes	Flush eyes with water for 15 minutes
Skin	Wash thoroughly with soap and water and remove contaminated clothes
Ingestion	Induce vomiting if person is still conscious, seek medical attention
Inhalation	Remove person to fresh air, seek proper medical assistance

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TIN / ANTIMONY / COPPER / NICKEL  
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## SECTION 9 - SPECIAL HANDLING PROCEDURES

Ventilation	If fumes or dust is being generated, a mechanical device must be used to maintain exposure levels below TLVs
Respiratory Protection	Only required if TLVs are exceeded, use proper dust & fume mask in areas where excessive dust or fumes are being generated
Skin Protection	Use gloves and other protective clothing for excessive skin contact

## SECTION 10 - SPECIAL PRECAUTIONS & ADDITIONAL INFORMATION

Storage	Store in dry conditions, avoid contact with strong acids & bases
Handling Information	OSHA regulations for air born contaminants 29 CFR 1910.1000, OSHA regulations 29 CFR 1910.1025 Personnel must wash their hands prior to eating, smoking, drinking or when applying any type of cosmetics.

## SECTION 11 - TRANSPORTATION

Proper Shipping	Not required
UN Number	N/A
NA Number	N/A
DOT Exemption Number	N/A
Hazardous Classes	N/A

NOTE: The information given is in good faith, but no warranty, expressed or implied, is made.

### Material Safety Data Sheet

#### Section 1 Identification

Product Name:	Grade 2 Nickel Babbitt	Health:	0
Chemical Family:	Metal	Flammability:	0
Formula:	Sn/Sb/Cu/Ni	Reactivity:	0
C.A.S.	7440-31-5 7440-36-0 7440-50-8	Hazard Scale: Least Slight Moderate High Extreme 0 1 2 3 4 NA = Not Applicable NE = Not Established	

#### Section 2 Component Mixture

Component	CAS Number	%	Dim	Exposure Limits:
Tin	CAS# 7440-31-5	89		
Antimony	CAS# 7440-36-0	7.5		2 mg/m <sup>3</sup>
Copper	CAS# 7440-50-8	3.5		

#### Section 3 Hazard Identification (Also see section 11)

Generally not hazardous in normal handling, however good laboratory practices should always be used. Avoid long term exposure to skin or by inhalation.

#### Section 4 First Aid Measures

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**FIRST AID: SKIN:** Wash exposed area with soap and water. If irritation persists, seek medical attention.

**EYES:** Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid.

**INGESTION:** Do not induce vomiting. Contact a physician.

#### Section 5 Fire Fighting Measures

**Fire Extinguisher:** Special powder or dry sand. Do not use water!

**Fire/Explosion Hazards:** Dust at sufficient concentrations can form explosive mixtures with air.

**Fire Fighting Procedure:** Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing. Toxic fumes may be generated at elevated temperatures.

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#### Section 6 Accidental Release Measures

Sweep up and place in suitable (fiberboard) containers for reclamation or later disposal.

#### Section 7 Handling and Storage

Store in a cool dry well ventilated area. Keep away from heat and flame. Do not get in eyes, on skin, or on clothing.

#### Section 8 Exposure Controls & Personal Protection

Respiratory Protection: NIOSH approved dust mask

Mechanical:	Hand Protection:	Gloves to prevent skin exposure as latex or vinyl
Ventilation: <input type="checkbox"/>	Eye Protection:	Splash Goggles
Local Exhaust: <input checked="" type="checkbox"/>		

Other Protective Equipment: Wear appropriate clothing to prevent skin exposure

#### Section 9 Physical and Chemical Properties

Melting Point:	360-620°F	Specific Gravity:	N/A
Boiling Point:	2984°F	Percent Volatile by Volume:	0
Vapor Pressure:	Not volatile	Evaporation Rate:	N/A
Vapor Density:	Information not available	Evaporation Standard:	
Solubility in Water:	Insoluble	Auto ignition Temperature:	Not applicable
Appearance and Odor:	Silvery-Gray granules, bars, or mossy flakes	Lower Flamm. Limit in Air:	Not applicable
Flash Point:	N/A	Upper Flamm. Limit in Air:	Not applicable

#### Section 10 Stability and Reactivity Information

Stability: Stable      Conditions to Avoid: Moisture

Materials to Avoid: Halogens, halogen trifluorides, sulfur, potassium peroxide, acids

Hazardous Polymerization: Will Not Occur

Condition to Avoid: None known

#### Section 11 Additional Information

Effects of overexposure, Acute and Chronic: No effects expected to skin. May cause mechanical abrasion to eyes. Prolonged inhalation of dust or fume may result in a benign pneumoconiosis, producing distinctive changes in the lungs with no apparent disability or complications. Conditions aggravated/target organs: Persons with pre-existing eye, skin or respiratory conditions may be more susceptible.

DOT Classification: Not Regulated

DOT regulations may change from time to time. Please consult the most recent version of the relevant regulations.

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