

LPS # 85759 MAY 11 2005  
Revd Dec 2001

452465 / 510-010  
452471 / 510-016

# MATERIAL SAFETY DATA SHEET

6/12/2024: File Reviewed. More current MSDS/SDS not available. CAS

VENDEE AND THIRD PERSONS ASSUME THE RISK OF INJURY DIRECTLY OR INDIRECTLY CAUSED BY THE MATERIAL IF REASONABLE SAFETY PROCEDURES ARE NOT FOLLOWED AS PROVIDED FOR IN THE DATA SHEET, AND VENDOR SHALL NOT BE LIABLE FOR SUCH INJURY. FURTHERMORE, VENDOR SHALL NOT BE LIABLE FOR INJURY TO VENDEE OR THIRD PERSONS, DIRECTLY OR INDIRECTLY CAUSED BY ABNORMAL USE OF THE MATERIAL, EVEN IF REASONABLE SAFETY PROCEDURES ARE FOLLOWED.

ALL PERSONS USING THIS PRODUCTS, ALL PERSONS WORKING IN AN AREA WHERE THIS PRODUCTS IS USED, AND ALL PERSONS HANDLING THIS PRODUCT SHOULD BE FAMILIAR WITH THE CONTENT OF THIS DATA SHEET. POSTING THIS DOCUMENT FOR EMPLOYEE NOTIFICATION IS RECOMMENDED BY THE VENDOR AND MAY BE REQUIRED BY LAW IN YOUR STATE.

P. EWTER

Revision Date: 1 24, 2000

## I PRODUCT IDENTIFICATION

MANUFACTURED BY	NEY SMELTING & REFINING CO., INC.	TELEPHONE NO.	718-389-4900
ADDRESS	269 FREEMAN ST. P.O. BOX 22-0377 BROOKLYN, NY 11222		
TRADE NAMES	B7		
SYNONYMS	LEAD FREE, WATER SAFE,		
INTENDED USE	Jewelry alloys, Lead free service, gravity castings (less than 0.05% Pb)		

## II HAZARDOUS INGREDIENTS

MATERIAL OR COMPONENT (CAS #)	WEIGHT %	HAZARD DATA OSHA PEL	ACGIH TLV
Tin (CAS # 7440-31-5)	89 % -- 94 %	2 mg/m3	2 mg/m3
Antimony (CAS # 7440-36-0)	1 % - 10 %	0.5 mg/m3	0.5 mg/m3
Copper (CAS # 7440-50-8)	.1 % -- 5 %	1 mg/m3 (m&D) 0.1 mg/m3 (fume)	1 mg/m3 (m&D) 0.2 mg/m3(fu)

## III PHYSICAL DATA

BOILING POINT	Antimony	1380 C
SPECIFIC GRAVITY (H2 O=1)	Copper	8.89-8.94
VAPOR PRESSURE	Not Applicable	
VAPOR DENSITY (AIR = 1)	Not Applicable	

SOLUBILITY IN H<sub>2</sub>O (% BY WT) Insoluble

---

% VOLATILES BY VOL. Not Applicable

---

EVAPORATION RATE  
(BUTYL ACETATE =1) Not Applicable

---

APPEARANCE AND ODOR Silver Color Metal With No Odor

---

#### IV HEALTH HAZARD INFORMATION

---

Primary Routes of Exposure: Ingestion of dust, inhalation of dust or fume.

Pure Tin:- Inhalation of fumes from melting, casting, welding or burning and dust from grinding or cutting. Chronic inhalation of tin oxide dust or fume leads to a benign pneumoconiosis without symptoms of interference with pulmonary function.

Pure Antimony:- Excessive exposure to antimony has caused dermatitis, rhinitis, eye irritation, pain and tightness in the chest, gastrointestinal disorders and neurological disturbances such as irritability, sleeplessness, dizziness and neuralgia. Note: Antimony is a low percentage of the B7 formula.

Pure Copper:- Industrial exposure to copper fumes, dusts or mists results in metal fume fever with atrophic changes in nasal mucous membranes. Chronic poisoning results in Wilson's disease, characterized by a hepatic cirrhosis, brain damage, demyelination, renal disease and copper deposition in the cornea. Note: Copper is a very low percentage of the B7 formula.

---

#### Effects of Overexposure

##### Acute Overexposure

Excessive inhalation of fumes from many metals can produce an acute reaction known as "metal fever." Symptoms consist of chills and fever (very similar to and easily confused with flu symptoms) which comes on a few hours after large exposure. Long-term effects of metal fume fever have not been noted.

---

##### Chronic Overexposure

Fumes may cause irritation of the respiratory tract, skin and eyes.

---

#### Emergency and First Aid Procedures

**Eye's** Flush eyes with water at least 15 minutes. Seek medical assistance if necessary.

---

**Skin** Remove excess dust. Wash affected area with soap and water. Seek medical attention if necessary. Treat burns from molten material as you would any other serious burns.

---

**Inhalation** Remove from over-exposure to fresh air. Consults a physician. Keep the subject warm and at rest. Perform artificial respiration if breathing has stopped.

---

**Ingestion** If large quantities are ingested, give 1-2 glasses of water or milk. Induce vomiting only if victim is fully conscious and has not convulsed. (Ingestion of significant amounts is unlikely.) All ingestion cases should have immediate medical aid.

---

## V FIRE AND EXPLOSION DATA

---

Flash Point (Test Method)	Not Applicable	Auto ignition Temperature	Not Applicable
------------------------------	----------------	------------------------------	----------------

---

Flammable Limits in Air (% by Vol.)	Lower	Not Applicable	Upper	Not Applicable
-------------------------------------	-------	----------------	-------	----------------

---

**Extinguishing Media** Special mixtures of dry chemical suitable for metal fume. Do not use water or moist sand. Fire fighters should wear self-contained breathing apparatus and protective clothing.

---

**Special Fire** Metal products are not a fire hazard. However, dust generated in grinding operation if mixed with flammable coatings may present a fire or explosion hazard under certain conditions. At a temperature above 400 F this alloy could melt and continuous heating could produce metal vapor.

---

## VI REACTIVITY DATA

---

Stability	Stable
-----------	--------

---

Conditions Contributing Stable at room temperature

---

### Incompatibility

Pure Tin:- Is incompatible with chlorine and turpentine.

Pure Antimony:- Is incompatible with ammonium nitrate, halogens, BrN<sub>3</sub>, BrF<sub>3</sub>, HClO<sub>3</sub>, ClO, ClF<sub>3</sub>, nitric acid, potassium nitrate, potassium permanganate, K<sub>2</sub>O<sub>2</sub>, sodium nitrate, oxidants, acids and halogenated acids.

Pure Copper:- Is incompatible with 1-bromo-2-propyne, fume is incompatible with acetylene gas, dust and mist are incompatible with acetylene gas and magnesium metal.

---

Hazardous Decomposition	Not Applicable
-------------------------	----------------

---

Hazardous Polymerization	Does Not Occur
--------------------------	----------------

---

## VII SPILLS, LEAKS, & DISPOSAL PROCEDURES

### Steps To Be Taken in The Event of Spills, leaks, or Release

No special precautions are necessary for spills of bulk material. If large quantities of dust are spilled, remove by vacuuming with approved HEPA type filtration or wet sweeping to prevent heavy concentrations of airborne dust. Clean-up personnel should wear respirators and protective clothing.

---

### Waste Disposal Methods

Scrap metal can be reclaimed for reuse. Follow Federal, State, and Local regulations regarding disposal.

---

**SARA Title III Notifications and Information**

Reportable under SARA Title III - Section 313 Supplier Notification for reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986 and of 40 CFR 372

This information must be included on all MSDSs that are copied and distributed for this material.

---

**VIII SPECIAL PROTECTION INFORMATION**

---

**Ventilation Requirements**

Use mechanical local exhaust ventilation adequate to maintain airborne concentration of all components and reaction produced to within their respective OSHA PELs.

---

**SPECIFIC PERSONAL PROTECTION EQUIPMENT**

**Respiratory** Use air-supplied respirator in confined or enclosed spaces if needed.

---

**Eye** Goggles, face shield

---

**Glove** Use chemical resistant gloves to avoid repeated skin contact.

---

**Other Clothing and Equipment**

Wear non-flammable protective clothing for, melting, casting and torch soldering

---

**Work/Hygienic Practices**

To avoid ingestion of material, wash hands and face before eating, drinking, or consumption of tobacco.

---

**IX SPECIAL PRECAUTIONS**

---

**OTHER HANDLING AND STORAGE REQUIREMENTS**

Use good housekeeping practices to prevent accumulations of dust and to keep airborne dust concentrations at a minimum. Avoid breathing dust or fumes.

Store material away from incompatible materials, and keep dust away from sources of ignition.

---

**DISCLAIMER OF EXPRESSED OR IMPLIED WARRANTIES**

Although reasonable care has been taken in the preparation of this data sheet and all information contained therein has been reviewed and revised to the best of our ability, we extend no warranties and make no representations as to the accuracy or completeness of the information found in these data sheets. We therefor assume no responsibility regarding the suitability of this information for the users intended purposes or for the consequences of this product's use. Each individual must make his or her own determination as to the suitability of the information for such purpose(s) or use.