



ALCHEMY CASTINGS INC.

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Material Safety Data Sheet

WHMIS (Pictogram)	WHMIS (Classification)	Protective Equipment
	D-2A: Material causing Other toxic effects (Very Toxic).	

SECTION I: Product and Company Identification

Common Name: LOW 203	<p style="text-align: center;">In Case Of Emergency</p> <p>Canutec (CAN): (613) 996-6666</p> <p>Date Prepared: February 2010</p>
Trade Name: LOW 203, CerroShield	
Chemical Family: Bismuth Based Alloy	
Material Use: Soldering, Pouring	
Supplier Name: Alchemy Castings 563 Kenilworth Ave. N. Hamilton, Ontario Canada L8H 4T8	

SECTION II: Composition and Information on Ingredients

Name	CAS #	% by Weight	Exposure Limit	LD50 oral, rat
Bismuth (Bi)	7440-69-9	52.5	No data	500 mg/kg
Lead (Pb)	7439-92-1	32	0.05 mg/m ³	790 mg/kg
Tin (Sn)	7440-31-5	15.5	2.0 mg/m ³	72 mg/kg (mouse)

SECTION III: Physical Information

Boiling Point (°C)	Unknown	Specific Gravity	9.69
Vapour Pressure (mm Hg)	Unknown	% Volatile (By Volume)	Not Pertinent
Vapour Density (Air=1)	Unknown	Evaporation Rate (Ether=1)	Not Pertinent
Solubility In Water	Nil	pH	Not Pertinent
Appearance	Metallic Silver	Melting Point (°C)	95
Odour	None	Form	Bar, Ingot

SECTION IV: Transport Information

Shipping Name	Not Regulated	Class/Division	Not Pertinent
UN Number	Not Pertinent	Packing Group	Not Pertinent

SECTION V: Fire and Explosion Hazards	
Flash Point (°C) and Method	Dust may generate a fire
Flammable Limits in Air (Vol %)	Upper: Not Pertinent Lower: Not Pertinent
Means of Extinction	Class D – Dry Chemical or Sand

SECTION VI: Health Hazard and First Aid Data	
Ingestion	Effects: Metallic taste, abdominal cramps, frequent headaches, nausea, abdominal pain, foul breath, stomatitis, nephritis.
	First Aid: If particles ingested, give 1-2 glasses of water or milk. Do induce vomiting. Seek medical assistance.
Eye Contact	Effects: Irritation of eyes.
	First Aid: Flush with large amounts of water.
Skin Contact	Effects: Dermatitis.
	First Aid: If dust or mist gets on skin, wash skin with soap and water. Remove clothing and launder.
Skin Absorption	Not Pertinent
Inhalation	Fumes from welding or grinding can in excess cause "Metal Fume Fever". Remove victim and get aid.
Effects of Acute Exposure	Insomnia, weakness, constipation, nausea and abdominal pains.
Effects of Chronic Exposure	Muscle soreness, loss of appetite, metallic taste, abdominal cramps, high blood lead.
Carcinogenicity	IARC (Yes)
Mutagenicity	Yes
Teratogenicity	Yes
Reproductive Effects	Yes

SECTION VII: Reactivity Data	
Stability	Stable - Yes Conditions to Avoid Not Pertinent
Incompatible Materials	Water No Acid Yes Oxidizers Yes
	Corrosive No Alkali Yes Reducers No
	Other Yes
Hazardous Decomposition Products	Bismuth oxide fumes will form at elevated temperatures.
Hazardous Polymerization	May Occur No Will Not Occur X
	Conditions to Avoid Not Pertinent

SECTION VIII: Preventative Measures	
Steps to be taken in case Material is Released or Spilled: If spill of dust, use cleanup methods which avoid dust generation. Use water and wet sweep or vacuum.	
Waste Disposal Method: Dispose of in accordance with appropriate federal and local regulations.	
Respiratory Protection: When engineering controls are not feasible to control overexposure, use appropriate NIOSH approved respirators.	
Engineering Controls	Local Exhaust Essential to keep worker exposure within allowable limits during welding or grinding.
	Mechanical (General) Not Applicable
	Special Not Applicable Other Not Applicable
	Not Applicable
Protective Gloves: As needed to protect against physical hazards.	Eye Protection: Safety glasses, goggles or face shield if molten.
Other Protective Equipment: Heat resistant leggings and gloves if pouring molten metal.	

SECTION IX: Special Precautions
Precautions to be taken in Handling and Storing: The scrap metal itself presents no health hazard unless it is welded, burned, ground or cut. Possible fumes may be generated. Should have complete evaluation done. Wash hands and arms after handling.
Special Precautions and Waste Disposal Methods: Return to manufacturer, scrap dealer, or dispose of in accordance to local & federal regulations.

SECTION X: Notice to Reader
The information contained in this MSDS was obtained from sources which are believed to be reliable. It is the user's responsibility to determine the suitability of this information for adoption of necessary safety precautions. The manufacturer does not assume responsibility and expressly disclaims liability for any loss, damage, or expense arising out of or in any way connected with, the handling, storage, use or disposal of the product identified in this MSDS.

Prepared by: Health, Safety and Environment Department of Alchemy Castings