



## Consolidated Alloys

A Division of C.A. Group Australasia Pty. Ltd.  
ABN 83 005 084 097 ACN 005 084 097

Head Office : 32 Industrial Avenue Thomastown, Victoria 3074  
AUSTRALIA  
Mail : PO Box 199, Reservoir, Victoria 3073  
AUSTRALIA  
Telephone : (03) 9359 5811  
Facsimile : (03) 9359 4076  
E-mail : info@cagroup.com.au

Reference No. : M108  
Product Name : Fusible Alloys

# MATERIAL SAFETY DATA SHEET

## Section 1 : IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **FUSIBLE ALLOYS**  
Other Names: **Low Melting Alloys.**  
Recommended Use: Fuses, Proof Cast Testing, Lens Grinding, Tube Bending, Low Temperature Soldering, Radiation Shielding.

### Supplier's / Manufacturer's

Name: Consolidated Alloys  
Address: 32 Industrial Avenue, Thomastown, Victoria 3074, AUSTRALIA  
Telephone No.: (03) 9359 5811  
Emergency No.: (03) 9359 5811 – Business Hours  
0439 062 480 – After Hours (24Hrs)

Poisons Information Centre  
Victoria  
Telephone No.: 131126

## Section 2 : HAZARD IDENTIFICATION

Hazard Classification according to criteria of Worksafe Australia.

Risk Phrase(s)

R20/21	Harmful by inhalation and contact with skin.
R22	Harmful if swallowed.
R33	Danger of cumulative effects.

Safety Phrase(s)

S13	Keep away from food, drink and animal feeding stuffs.
S20/21	When using, do not eat, drink or smoke.



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### Section 3 : COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Entity	Proportion	CAS Number
Tin	Variable	7440-31-5
Lead	Variable	7439-92-1
Bismuth	Variable	7440-69-9
Indium	Variable	7440-74-6
Antimony	Variable	7440-36-0
Cadmium	Variable	7440-43-9
Silver	Variable	7440-22-4

### Section 4 : FIRST AID MEASURES

Description of necessary measures according to route of exposure.

Ingestion:	Give plenty of water to drink; seek medical advice if a large object has been swallowed.
Eye:	Irrigate the affected eye(s) with water and seek medical advice to remove the foreign body if necessary.
Skin:	If molten material comes in contact with the skin and adheres: - cool quickly with running water – do not attempt to remove. For metal dust contamination, wash the affected area with soap and water.
Inhalation:	If fume or dust is inhaled, remove victim to fresh air taking care not to become a casualty. Lay patient down and keep warm and rested. Seek medical attention.
Medical Attention and Special Treatment:	Treat symptomatically.

#### Additional information

Aggravated Medical Conditions Caused by Exposure:	Test for lead in blood if patient has had long term exposure, particularly to dust or fume. Blood lead levels exceeding 100 ug/100ml indicate lead poisoning. Exposure of high levels of airborne or ingested lead may produce symptoms of anaemia, insomnia, weakness, constipation, nausea and abdominal pain. Women of child bearing age should avoid exposure to lead due to post natal effects. Over exposure to Tin and Antimony not expected.
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## Section 5 : FIRE FIGHTING MEASURES

Extinguishing Media: Dry Chemical Powder or Carbon Dioxide.

Hazards from Combustion Products: Non Flammable.

Special Protective Equipment: Fire fighters should wear self contained breathing apparatus and protective clothing if exposed to products of decomposition.

Additional information Avoid contact with strong acids.  
Incompatibility: Avoid oxidising materials, acids and peroxides.

HAZCHEM CODE: None Allocated

## Section 6 : ACCIDENTAL RELEASE MEASURES

Emergency Procedures: Refer to protection measures listed in 7/8.

### Methods and Materials for Containment and Clean Up Procedures

Small Spills / Leaks: In molten state allow to solidify and cool. Break up and recycle as scrap.

Large Spills / Leaks: In molten state allow to solidify and cool. Break up and recycle as scrap. Seek advice of supplier. If necessary dam the spill area to prevent entry of molten metal to drains. Scrap solder by-products can be recycled by returning to supplier.

*For Personal Protective Equipment (PPE) - refer to Section 8 of this MSDS (if required)*



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## Section 7 : HANDLING AND STORAGE

Precautions for Safe Handling: Good occupational practice should be followed when lifting or carrying lead. Always wear protective clothing and equipment when molten metal is present.

Conditions for Safe Storage: Material stable. Storage and transport should not present a problem.

## Section 8 : EXPOSURE CONTROLS / PERSONAL PROTECTION

National Exposure Standards – as regulated by: Worksafe Australia

Chemical Name	ES – TWA	ES – STEL	ES – Peak
Tin (Dust & Fume)	2.0 mg/m <sup>3</sup>		
Lead	0.15 mg/m <sup>3</sup>		
Bismuth	Not Listed		
Indium	0.1 mg/m <sup>3</sup>		
Antimony	0.5 mg/m <sup>3</sup>		
Cadmium	0.05 mg/m <sup>3</sup>		
Silver	0.5 mg/m <sup>3</sup>		

Biological Limit Values: No data available.

Engineering Controls: Avoid inhalation of dust or fume. Vacuuming is recommended. Adequate ventilation/extraction should be provided to keep exposure to below TWA values. Avoid overheating.

### Personal Protective Equipment (PPE)

Eye / Face Protection: Safety Glasses or full face mask recommended for exposure to dust or hot metal splashes.

Skin Protection: Leather gloves, safety boots and protective clothing should be worn and kept clean. Always wash hands before eating, drinking, smoking or using the toilet.

Respiratory Protection: An approved dust/fume respirator should be worn when TWA values may be exceeded.



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## Section 9 : PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Dull Solid
Colour:	Silver/Grey
Odour:	Nil
Vapour Pressure:	N/A
Vapour Density:	N/A
Boiling Point:	N/A
Melting Point:	Composition of fusible alloys is variable, therefore none given.
Solubility in Water:	Insoluble
Specific Gravity:	Composition of fusible alloys is variable, therefore none given.
Flash Point:	N/A
pH:	N/A

### *For Flammable Limits (as a percentage volume in air)*

Lower Explosion Limit :	N/A
Upper Explosion Limit :	N/A
Ignition Temperature:	N/A
Specific Heat Value :	N/A
Particle Size:	N/A
Volatile Organic Compounds (VOC) Content	N/A
Evaporation Rate :	N/A
Viscosity :	N/A
Percent Volatile :	N/A
Octanol/Water partition coefficient :	N/A
Saturated Vapour Concentration :	N/A
Additional Characteristics	N/A
Flame Propagation/Burning Rate of Solid Materials :	N/A
Properties of material that may initiate or contribute to fire intensity :	N/A
Potential for Dust Explosion :	Nil
Reactions that Release Flammable Gasses :	Nil
Fast or Intensely Burning Characteristics :	N/A
Non-Flammables that could contribute unusual hazards to a fire :	None
Release of invisible flammable vapour and gasses :	Nil
Decomposition Temperature :	N/A

### Additional Information

Molecular Weight :	N/A
Solubility :	Insoluble



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## Section 10 : STABILITY AND REACTIVITY

Chemical Stability:	Stable under the handling and storage conditions listed in section 7.
Conditions to Avoid:	Avoid contact with strong acids.
Incompatible Materials	Avoid oxidising materials, acids and peroxides.
Hazardous Decomposition Products:	When heated to high temperatures lead can emit fumes which are toxic, as can cadmium which as an oxide is a carcinogen.
Hazardous Reactions:	None

## Section 11 : TOXICOLOGICAL INFORMATION

Toxicity Data:	No Data Available
Ingestion:	Extremely Unlikely unless in the form of dust or fume. Lead is absorbed in small amounts from the gastrointestinal tract, which may enter through the swallowing of inhaled particles.
Eye:	Dust or metal particles may cause soreness or scratches of the eye.
Skin:	Dust or fumes cannot be absorbed. Hot metal burns.
Inhaled:	Fumes can cause lead poisoning.

## Section 12 : ECOLOGICAL INFORMATION

Ecotoxicity:	The product has no effect on the environment unless in finely divided form.
Persistence / Degradability:	No Data Available
Mobility:	No Data Available
Environmental Fate	No Data Available
Bioaccumulative Potential :	No Data Available



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## Section 13 : DISPOSAL CONSIDERATIONS

Disposal Methods: Scrap should be recycled by returning to supplier. Do not dispose to landfill. Do not discharge into drains or water courses. Dispose of in accordance with all local, state and federal regulations at an approved waste disposal facility.

Special Precautions for Landfill or Incineration: Not Applicable

*The Disposal Considerations mentioned above applies to the material / product described in this MSDS as manufactured. Further processing, use, or contamination of the product may make the information inappropriate, inaccurate or incomplete.*

## Section 14 : TRANSPORT INFORMATION

UN Number: None Allocated  
UN Shipping Name: N/A  
Dangerous Goods Class: None Allocated  
Packing Group: None Allocated  
Special Precautions / Requirement: N/A  
HAZCHEM Code: None Allocated

Additional Information –  
Material for Export: N/A

## Section 15 : REGULATORY INFORMATION

Poison Schedule Number: None Allocated  
EPG: None Allocated  
AICS Name: N/A  
NZ Toxic Substance: N/A



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## Section 16 : OTHER INFORMATION

Last Revision: 18/02/2008

THIS MATERIAL SAFETY DATA SHEET IS OFFERED SOLELY FOR YOUR INFORMATION, CONSIDERATION AND INVESTIGATION. CONSOLIDATED ALLOYS PROVIDES NO WARRANTIES, EITHER EXPRESSED OR IMPLIED AND ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THE DATA CONTAINED HEREIN. MATERIAL USE IS BEYOND THE CONTROL OF SUPPLIER.

----- End of MSDS -----