

Thessco Limited

Safety Data Sheet.

According to Regulation (EC) No 1907/2006

Section 1: Product and Manufacturer Information

Product Name	Cadmium Free Silver Brazing Alloys (see section 16 for alloy listing)
Product code	See section 16 for product codes
Recommended Use	Metal joining applications
Manufacturer	Thessco Limited, Royds Mills, Windsor Street, Sheffield, S4 7WB, England
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Section 2: Hazards Identification

Most Important Hazards and Classification

Classification according to Regulation (EC) No. 1272/2008 (CLP Classification)



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H335-May cause respiratory irritation

Carcinogen	None known.
Mutagenic	None known.
Toxic for Reproduction	None known.
Toxic	None known.
Dangerous for the Environment	None known.

Specific Hazards

The general hazards related to this product are due the potential for thermal burns in its use as a brazing alloy or from inhalation of metal and metal oxide fumes. However, under normal conditions occupational exposure levels are not likely to be exceeded.

Excessive exposure to copper and zinc oxide fumes evolved during severe overheating may result in metal fume fever. Symptoms are similar to those for influenza and often appear after a latent period of up to 10 hours. They typically disappear after 24 hours rest.

Section 3: Composition				
Chemical Name	CAS Number	EC Number	Label/Risk Phrase	Weight (%)
Silver	7440-22-4	231-131-3	--	5.0 - 88.0
Copper	7440-50-8	231-159-6	--	10.0 - 88.0
Zinc	7440-66-6	231-175-3	--	1.0 - 45.0
Tin	7440-31-5	231-141-8	--	0.0 - 12.0
Section 4: First Aid Measures				
General Advice	Show this data sheet to the doctor in attendance.			
Inhalation	Remove patient to fresh air. Seek medical attention if respiratory symptoms develop. Keep warm and at rest.			
Skin contact	If reddening occurs wash affected area with soap and water. Seek medical attention if symptoms persist.			
Eye contact	If redness or watering occurs irrigate with copious amounts of isotonic water or isotonic saline. Seek medical attention.			
Ingestion	Do not induce vomiting. Keep warm and at rest. Obtain medical attention.			
Section 5: Fire Fighting Measures				
Suitable extinguishing media	Extinguish with dry powder, carbon dioxide or water spray.			
Unsuitable extinguishing media	Water jets.			
Specific hazards	None.			
Special protective equipment for fire fighting	No special measures required.			
Section 6: Accidental Release Measures				
Personal precautions	Wear personal protective equipment.			
Environmental precautions	Avoid release to the environment. Do not release to drain nor water courses.			
Spillages	Transfer into suitable containers for recovery or disposal.			
Section 7: Handling and Storage				
Handling	Avoid contact with eyes, skin and clothing. Avoid breathing in metal fumes from heated material. When using do not eat drink or smoke.			
Storage	Store in original packaging in cool, dry conditions.			
Section 8: Exposure Controls/Personal Protection				
Workplace exposure limits (From EH40/2005 including revisions up until 2011)				
Substance	TWA (8 hours)		STEL (15 minutes)	
Silver	0.1 mg.m ⁻³		--	
Copper fume (as Cu)	0.2 mg.m ⁻³		--	
Zinc (as ZnO fume)	5.0 mg.m ⁻³		10.0 mg.m ⁻³	
Tin compounds, inorganic, except SnH ₄ , (as Sn)	2.0 mg.m ⁻³		4.0 mg.m ⁻³	
Tin compounds, organic, except Cyhexatin (ISO), (as Sn)	0.1 mg.m ⁻³		0.2 mg.m ⁻³	

Wear suitable protective clothing, PVC gloves for handling and heat resistant gloves as appropriate. If PPE is required a chemical cartridge respirator should be used. Workplace atmospheric monitoring and local exhaust ventilation may be required. Medical surveillance may be required.

Section 9: Physical and Chemical Properties

Form	Wire/rod or strip/sheet in coil or straight lengths; discs or other shapes as required or as powder.
Colour	Metallic silver/copper/brass dependent on composition.
Odour	None.
pH	Not applicable.
Melting point/range	600-790°C
Water solubility	Very slight
Relative Density	7.6-9.2 at 20°C (dependent on composition)

Section 10: Stability and Reactivity

Stability	Stable under normal conditions.
Conditions to avoid	Not applicable.
Materials to avoid	Strong acids.
Hazardous decomposition products	None known.

Section 11: Toxicological Information

Acute toxicity	No data available.
Irritancy - Skin	Very slight potential for an allergic skin reaction
- Eyes	Unlikely to cause a problem.
Skin sensitisation	None known.
Carcinogenicity	None known.
Chronic toxicity	None known

Section 12: Ecological Information

Mobility	The product is non-volatile and insoluble. It will accumulate in the ground.
Persistence/Degradability	The product is expected to be resistant to biodegradation.
Bio-accumulation	A potential for bio-accumulation is indicated.
Ecotoxicity	No information available.

Section 13: Disposal Considerations

Waste from residues and unused product	Return to supplier.
Regulations	The wastes are classified as hazardous and should be disposed of in accordance with the Waste Framework Directive (75/442/EEC) and the Hazardous Waste Directive (91/689/EEC)
European Waste Catalogue (EWC) No.	17-04-09* (Metal – scrap, non-ferrous).

Section 14: Transport Information

Non-hazardous for air, sea and road freight.

UN Class	Not classified.
ADR/RID - Class	Not classified.
IMDG - Class	Not classified.
IMDG - Marine pollutant	Not classified.
IATA - Class	Not restricted.

Section 15: Regulatory Information

Regulation EC 1272/2008 Classification, Labelling and Packaging of Hazardous Substances and Mixtures (CLP).

Chemicals (Hazard Information and Packaging for Supply) Regulations 2009

EH40/2005 Workplace exposure Limits.

Personal Protective Equipment at work regulations 1992 (as amended)).

Control of Substances Hazardous to Health Regulations as amended (2002)

Labels Harmful

Classification according to EC 1272/2008 Classification, Labelling and Packaging of Hazardous Substances and Mixtures (CLP).



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Hazard Phrases:

Precautionary Phrases:

H335-May cause respiratory irritation

H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled

P261: Avoid breathing dust/fumes/gas/mist/vapours/spray.
P270: Do not eat, drink or smoke when using this product
P280: Wear protective gloves/protective clothing/eye protection/face protection

Section 16: Other

Product Names and Product Codes.

Product Name	Product Code	Product Name	Product Code	Product Name	Product Code
H21	33268	M14	31751	M37T	33408
H20	31024	M13	31196	HOT	31103
H15	31041	F30	32290	M30T	33458
H14	31134	M3	31729	M26T	31918
H14M	32366	M1	31258	M25T	31120
H12ZN	23235	M0	33192	M15T	31641
M42	32084	L23	32501	LAg45Sn	32177
H7	31636	L18	31605	M10T	31780
H7H	32370	L18HC	31887	M8T	31526
H7XE	32383	L17	33175	L31T	32129
H7E	32397	Z20	32484	M4T	31811
H4	31670	L13	33206	MOT	31289
H3	33518	F26	32273	VM0T	33955
H1	31091	Spelter	31306	L18T	33051
H0	31619	L7	31323	L11T	32211
M28	31117	L5	31966	L0T	33127
M24	33637	L3	31354		
M20	31983	T10	33919		
M15	32132				

For further information contact the Technical Department at Thessco Limited.

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