

SAFETY DATA SHEET

Alloys Containing Tin/Lead/Bismuth/Cadmium

1. PRODUCT IDENTIFICATION

Alloys containing Tin/Lead/Bismuth/Cadmium

Products Covered By This SDS

Cerrobend

2. COMPOSITION/INFORMATION ON THE COMPONENTS

Hazardous Components in Product For EC

Component Name	Code	Concentration	R Phrases
Bismuth	7440-69-9	5.00 – 50.00	
	231-177-4		
Cadmium	7440-43-9	1.00 – 20.00	R33
	231-152-8		
Lead	7439-92-1	10.00 – 40.00	R33
	231-100-4		
Tin	7440-31-5	2.00 – 45.00	
	231-141-8		

R33

R33 Danger of cumulative effects

3. HAZARD IDENTIFICATION

Main Hazards

Not classified as hazardous. Thermal burns from contact with molten product. Danger of cumulative effects.

Health Effects – Eyes

Molten metal may cause severe damage and may result in loss of vision. Dust may cause conjunctival irritation.

Health Effects – Skin

Molten metal may cause severe damage to skin tissue.

Health Effects – Ingestion

Swallowing may have the following effects:- nausea, vomiting, diarrhoea, muscle pains. Contains lead which is a cumulative poison. Long term effects may include:- anaemia, fatigue, abdominal

pain, anorexia, vomiting, constipation or diarrhoea, reduction in the oxygen carrying capacity of the blood. Hot material will cause thermal burns.

Health Effects – Inhalation

Exposure to dust or processing fumes may have the following effects:- coughing, difficulty with breathing, pulmonary oedema, liver damage, kidney damage, systemic effects similar to those resulting from ingestion. Because of slow elimination from the body repeated exposures may result in accumulation. Prolonged or repeated exposure will have the following effects:- liver damage, bladder and kidney calculi, may prove suddenly fatal.

4. FIRST AID MEASURES

First Aid – Eyes

Immediately flood the eye with plenty of water for at least 15 minutes, holding the eye open. Obtain medical attention urgently

First Aid – Skin

In case of contact with molten metal immediately flood affected area with cold water. Obtain medical attention urgently.

First Aid – Ingestion

Do not induce vomiting. Obtain medical attention urgently.

First Aid – Inhalation

In case of exposure to processing fumes: Remove from exposure. Obtain medical attention urgently.

5. FIRE FIGHTING MEASURES

Extinguishing Media

Not combustible. Select extinguishing agent appropriate to other materials involved.

Unsuitable Extinguishing Media

Do not use water jet.

Special Hazards Of Product

This product may give rise to hazardous fumes in a fire.

Protective Equipment For Fire Fighting

Wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Wear appropriate protective clothing.

Environmental Precautions

Try to prevent the material from entering drains or water courses.

Spillage's

Allow to solidify. Transfer into suitable containers for recovery or disposal. Avoid creating a dust.

7. HANDLING AND STORAGE

Handling

Avoid breathing metal fumes from heated material. Use local exhaust ventilation. Extreme care should be exercised to ensure that all tools and metal are dry.

Storage

Storage area should be: cool, dry, well ventilated. Store in original containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Standards

Cadmium	UK EH40: MEL 0.025mg/m ³ 8h TWA
	UK EH40: MEL, STEL 0.05mg/m ³ 15min
Lead	Control of Lead at work regs: 0.15mg/m ³ 8h TWA
Tin	UK EH40: OES 2mg/m ³ 8h TWA
	UK EH40: OES, STEL 4mg/m ³ 15min

Women of child bearing age should avoid exposure to lead and its inorganic compounds due to post-natal effects. Lead can cause potential harm to the developing fetus.

12. ECOLOGICAL INFORMATION

Mobility

The product is involatile and insoluble and will accumulate in the ground.

Persistence/Degradability

The product is expected to be resistant to biodegradation.

Bio-accumulation

Limited information indicates a potential to bioaccumulate.

Ecotoxicity

The product is rated as slightly toxic to aquatic species.

13. DISPOSAL

Product Disposal

Metals should be recovered when possible. Wastes containing high levels of lead oxides are classified as a 'special waste' under the COPA (Special Waste) Regulations 1996 and must be disposed of in accordance with those regulations.

Container Disposal

Labels should not be removed from containers until they have been cleaned. Contaminated containers must not be re-used. Dispose of containers with care.

14. TRANSPORT INFORMATION

UN Number

Not classified.

ADR/RID - Class

Not classified.

IMDG - Class

Not classified.

IMDG - Marine Pollutant

No.

IATA - Class

Not restricted.

15. REGULATORY INFORMATION

Labelling Information

☐ Not classified

(Health)

☐ Not classified

(Safety)

☐ Not classified

(Environment)

R phrases

None.

S phrases

P2 Warning. Contains lead.

EINECS Listing

Preparation containing solely TSCA & EINECS listed Substances.

Engineering Control Measures

Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure mechanical ventilation (dilution and local exhaust) and control of process conditions. Administrative controls and personal protective equipment may also be required.

Respiratory Protection

Dust respirator. Respiratory protection if there is a risk of exposure to high vapour concentrations.

Hand Protection

Leather, thick textile or other thermal gloves. If handling hot material.

Eye Protection

Face shield when handling hot product.

Body Protection

Normal work wear.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State

Solid

Colour

Grey

Melting Point (°C)

70

Density (g/ml)

8 – 9 at 20°C

10. STABILITY AND REACTIVITY

Stability

Stable under normal conditions.

Conditions To Avoid

None Known.

Materials To Avoid

None Known.

Hazardous Decomposition Products

Melting may release: Metal fumes.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Low order of acute toxicity.

Irritancy – Eyes

Not applicable.

Irritancy – Skin

Not applicable.

Skin Sensitisation

None known.

Chronic Toxicity/Carcinogenicity

A component of this product is classified by EEC as a category 3 carcinogen:- substances which cause concern owing to possible carcinogenic effects but in respect of which the information is not adequate for a satisfactory assessment, Inhalation.

Reproductive/Developmental Toxicity

None known.

Human Data

*** Revised***

16. OTHER INFORMATION

The information contained herein is based on data considered accurate and is offered at no charge. The above data is typical of the product in general but batches may show variations. No warranty is expressed or implied regarding the accuracy of this data.

Liability is expressly disclaimed for loss or injury arising out of the use of this information or the use of any materials designated.

In countries other than the UK, there may be different Exposure Limits, please check with your National Authorities.

MSDS first issued

31 August 1995.

MSDS data revised

28 January 1999.

Revisions Highlighted

Human Data.