
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

Tin
UK EH40: OES 2mg/m³ 8h TWA
UK EH40: OES, STEL 4mg/m³ 15min

Engineering Control Measures

Fumes from soldering process should not be breathed. 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)

138 - 170

Density (g/ml)

8.5 - 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 classified.

Irritancy - Skin

Not classified.

Skin Sensitisation

None known.

Chronic Toxicity/Carcinogenicity

None known.

Reproductive/Developmental Toxicity

None known.

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 non-hazardous to aquatic species.

13. DISPOSAL

Product Disposal

This material will be classified as a 'special waste' under the COPA (Special Waste) Regulations 1996 and must be disposed of in accordance with those regulations.

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

None.

EC Annex: Classification

Not Restricted.

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

4 September 1995.

MSDS data revised

28 January 1999.

SAFETY DATA SHEET

Alloys Containing Tin/Bismuth

1. PRODUCT IDENTIFICATION

Alloys containing Tin/Bismuth

Products Covered By This SDS

True Alloy (138°C), Cast Alloy (138 - 170°C)

2. COMPOSITION/INFORMATION ON THE COMPONENTS

Hazardous Components in Product For EC

Component Name	Code	Concentration	R Phrases
Bismuth	7440-89-9 231-177-4	40.00 – 58.00	
Tin	7440-31-5 231-141-8	42.00 – 60.00	

3. HAZARD IDENTIFICATION

Main Hazards

Not classified as hazardous. Thermal burns from contact with molten product.

Health Effects – Eyes

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

Health Effects – Skin

Molten metal may cause severe damage to skin tissue. Exposure to dust may have the following effects:- irritation, ulceration.

Health Effects – Ingestion

Hot material will cause thermal burns. Systemic effects similar to those resulting from inhalation.

Health Effects – Inhalation

Exposure to dust or processing fumes may have the following effects:- gastrointestinal irritation, vomiting.