



SAFETY DATA SHEET
Alloys Containing Tin/Lead/Bismuth/Indium

1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name	Alloy 58 or Alloy 136F
Products Covered By This SDS	As above.
Manufacturer/Supplier Address	TOOL-SHOP-OPTIC Stockmar Angorastraße 6 D-79692 Wieslet Germany
Phone Number	0049 7622 6739600
Fax Number	0049 7622 6739602

2. COMPOSITION/INFORMATION ON THE COMPONENTS

Preparation – Hazardous Component

Bismuth 48- 50 %
 N/A
 Not classified

Indium 20 - 22 %
 N/A
 Not classified

Lead 17 - 19 %
 R33
 Not classified

Tin 11 –13 %
 N/A
 Not classified

3. HAZARD IDENTIFICATION

Main Hazards	Not classified as hazardous. Thermal burns from contact with molten products. 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, systematic 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, kidney 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 material involved.
Unsuitable Extinguishing Media	Do not use water jet.
Special Hazard 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 of water courses.
Spillages	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

Lead	Control of Lead at Work Regs.: 0.15mg/m ³ 6h TWA.
Tin	UK EH40: OES 2mg/m ³ 8h TWA. UK EH40: OES, STEL 4mg/m ³ 15min.

Engineering Control Measures	Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (pollution 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 products.
Body Protection	Normal work wear.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid.
Colour	Grey.
Melting Point (°C)	58 Deg C
Density (kg/m³)	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 EED 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.

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 indicated 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 1980 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	<input type="checkbox"/>	Not classified (Health)	<input type="checkbox"/>	Not classified (Safety)	<input type="checkbox"/>	Not classified (Environment)
R phrases	None.					
S phrases	P2 Warning. Contains lead.					
EC Annex Classification	None.					

16. OTHER INFORMATION

The information contained here 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 of loss or injury arising out of use of this information or the use of any material designated.

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

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