Safety Data Sheet

Regulation 1907/2006/EC, Article 31 REACH
Issue Number 2, Revision Date: June 2020
No. of pages 5

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Product Name	High Purity Leaded Bar Solder, Tinmans and Pellets Sn60Pb40

1.2. Relevant Identified uses of the substance or mixture and uses advised against

Description	Bar Solder, tinmans and pellets for solder baths and pots. For Industrial Use only.

1.3. Details of the supplier of the safety data sheet

Company	Solderking Assembly Materials Limited
Address	Unit 5D Lancaster Road Bridlington YO15 3QY
Web	www.solderking.com
Telephone	01262 363088
Email	info@solderking.com
Email of competent person	info@solderking.com

1.4. Emergency telephone number

Emergency Telephone Number	01262 363088

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

This product is not classified as dangerous according to Directive 1999/45/EC and its amendments

Classification	Not classified
Main Hazard	Warning!-Contains Lead. Inhalation: May be harmful if inhaled Ingestion: May be harmful if swallowed Skin Contact: Non irritant to skin A solder bar /pellets containing lead. Solder alloys containing lead give off negligible fume at soldering temperatures and at temperatures up to 500ºC. Over exposure to lead may result in headache, nausea, vomiting, abdominal spasms, fatigue, sleep disturbances, weight loss, leg arm and joint pain. Prolonged exposure may also cause central nervous system damage, gastrointestinal disturbances and kidney dysfunction. May cause harm to the unborn child. Pregnant workers should be protected against excessive exposure to lead. Lead is listed as a possible human
Environmental Effects	carcinogen (group 2B) by IARC and as an animal carcinogen (A3) by ACGIH. The product will have minimal direct environmental effects since it is an alloy.

Label Elements EC 1272/2008 (CLP/GHS)

Classification- EC 1272/2008	
Main Hazards	
Precautionary Statements	P403+P235 Store in a well ventilated place. Keep cool

SECTION 3: Composition/Information on ingredients

3.1. This material is defined as a mixture

67/548/EEC/1999/45/EC

Chemical Name	CAS No	EC No.	REACH Registration Number	Conc.(% w/w)	Classification
Tin	7440-31-5	231-141-8	01-2119486474-28-xxxx	1-100	Not classification

Lead	7439-92-1	231-100-4	01-2119513221-59-xxxx	1-100	Muta. 2 Carc 2 Repr. 1A STOT Rep EXP 1

The classifications listed indicate the potential hazards of the ingredients, Full Risk and Safety Phrases in Section 16.

SECTION 4: First Aid Measures

4.1. Description of first aid measures

Inhalation — If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a doctor. Keep affected person warm and at rest.

Eye contact — Flush eyes with plenty of water. Make sure contaminated water washes away from the face. Make sure the eyelids are properly washed.

Skin contact — Wash off with soap and plenty of water. Always wash hands before eating, drinking, biting nails or smoking, when using leaded products. Molten metal – cool burn site immediately with clean cold water and seek medical attention.

Ingestion — Rinse mouth with water. Will irritate gastric tract. Do not induce vomiting. Never give anything by mouth to an unconscious person. Obtain medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Acute exposure to lead products can cause headaches, tiredness, irritability, constipation, nausea, stomach pains, anaemia or loss of weight. Continued uncontrolled exposure could cause more serious symptoms such as kidney damage, nerve and brain damage, infertility.

An unborn child is at particular risk from exposure to lead, especially in the early weeks before a pregnancy becomes known. If you are a woman of child bearing age, you should make sure you follow good work practices and a high standard of personal hygiene. Severe lead toxicity has long been known to cause sterility, abortion and neonatal mortality.

4.3 Indication of any immediate medical attention and special treatment needed

Obtain medical attention for metal burns.

SECTION 5: Firefighting Measures

5.1. Extinguishing Media

Use extinguishing media appropriate to the surrounding fire conditions (Dry chemical, carbon dioxide, water spray or foam)

5.2. Special hazards arising from the substance or mixture

Lead oxides.

5.3 Advice for Fire Fighters

Wear self-contained breathing apparatus for fire fighting if necessary.

SECTION 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing fumes. Ensure adequate ventilation of the working area. Evacuate personnel to safe area.

6.2. Environmental precautions

Prevent further leakage. Do not let product enter drains. Discharge into the environment must be avoided.

6.3. Methods and material for containment and cleaning up

Sweep up and shovel. Keep in suitable closed containers for disposal.

6.4. reference to other sections

For disposal see section 13.

7.1. Precautions for safe handling

Avoid contact with eyes and skin. Ensure adequate ventilation of the working area. Fumes produced during reflow should be extracted away from the breathing zone of operators. Wash hands with soap and warm water after handling soldering products. Adopt best manual handling considerations when handling, carrying and dispensing.

7.2. Precautions for safe storage, including and incompatibility

Keep in a cool, dry, well ventilated area. Store in correctly labelled boxes.

7.3. Specific end use(s)

Bar solder for solder baths and pots.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Exposure Limit Values

Tin	2 mg/ m^3 8 hour Time Weighted Average, OEL
Lead	0.15mg/m^3 8 hour Time Weighted Average, OEL (UK EH40 WEL –Workplace exposure limit) The occupational exposure limits for lead are set out in the Control of Lead at Work Regulations 2002 (CLAW).
Silver	Not applicable
Copper	Not applicable

8.2. Exposure Controls

8.2.1 Appropriate engineering controls	Ensure adequate ventilation of the working area. Use process enclosures, local exhaust ventilation or other engineering controls to keep the worker below recommended or statutory limits. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the work day.
8.2.2. Individual protection measures	Wear protective clothing
Eye/face protection	Use safety goggles
Skin / Hand protection	Handle with gloves. Gloves must be inspected prior to use. When handling dross or molten metal, heat resistant gloves should be used. Wash and dry hands.
Biological Standards	For blood lead monitoring and medical surveillance requirements, refer to the HSE Approved Code of conduct. Employees should be under medical surveillance if the risk assessment made under the Control of Lead at work act indicates they are likely to be exposed to a significant level of lead. A woman employed on work which exposes her to lead should notify her employer as soon as possible if she becomes pregnant. Employers should assess the risks at work to the health of pregnant workers who have recently given birth or are breast feeding.

SECTION 9: Information on basic physical and chemical properties

State	Solid
Colour	Grey
Odour	Metal
pH	No data available
Melting point	See table below for melting points for specific alloys
Freezing point	Not available
Boiling point	Not available
Flash point	Not available
Evaporation rate	Not available
Flammability limits	Not available
Vapour flammability	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	Not available
Fat solubility	Not available
Partition coefficient	Not available
Autoignition temperature	Not available
Viscosity	Not available
Solubility	Insoluble in water

Alloy Table- please refer to your alloy supplied

Alloy Name	Alloy Breakdown	Melting Temperature ºC
60/40	Sn60/Pb40	183-188

Key: Sn-Tin, Pb-Lead

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Manufactured to J-STD-006 and EN29453 Standards

9.2. Other Information

Conductivity	No data available
Surface Tension	No data available
Gas group	No data available

SECTION 10: Stability and Reactivity

10.1. Reactivity

No data available on this product

10.2. Stability

When heated above 500ºC, harmful fumes of lead and lead oxide are produced.

10.3. Possibility of Hazardous Reactions

No data available

10.4. Conditions to avoid

When heated above 500ºC, harmful fumes of lead and lead oxide are produced.

10.5.Incompatible Materials

Strong oxidizing agents. Solder will react with concentrated acid to release poisonous fumes of nitric oxide. This in turn will oxidise to nitrogen dioxide, a red gas with pungent odour. If personnel are exposed to these gases, medical attention should be sought, as symptoms can be delayed.
Do not place wet or damp metal into a molten bath of solder –this could cause explosion.

10.6 Hazardous Decomposition Products

SECTION 11: Toxicological Information

11.1. Information on toxicological effects

Skin corrosion/irritation	May cause irritation.
Eye irritation	May cause irritation
Inhalation	Symptoms of lead poisoning occur quicker by inhalation than other body routes.
Ingestion	May cause headache, nausea, vomiting, dizziness and gastro-intestinal irritation.
Germ cell mutagenicity	Lead – Genotoxicity in vivo-rat- inhalation (cytogenetic analysis)
Carcinogenicity	IARC- 2B(Group 2B) Possible carcinogenic to humans (Lead group entry Annex 1)
Reproductive toxicity	Suspected human reproductive toxicant
Potential health effects	Lead is known to produce a continuum of diverse biological effects in humans, depending on the dose, which are usually associated with high and long term exposure.

SECTION 12: Ecological Information

12.2. Persistence and degradability

Toxicity to fish (Lead)	Mortality LOEC Oncorhynchus mykiss (Rainbow trout) – 1.19 mg/l- 96 hours LC50 – Micropterus dolomieui- 2.2mg/l- 96 hours Mortality NOEC- salvelinus fontinalis- 1.7mg/l-10.0d
Toxicity to daphnia and other aquatic invertebrates (Lead)	Mortality LOEC- Daphnia-0.17mg/l-2h hours

12.3. Bio-accumulative potential

No data available

12.4. Mobility in soil

Dissolved lead is bio accumulated by plants and animal, both aquatic and terrestrial and is highly toxic.

12.5.Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

Lead is not degradable and will persist in the environment.

SECTION 13: Disposal Considerations

General Information

Dispose of in compliance with all local and national regulations.

Disposal methods

Waste solder should be placed in metal tins and returned for disposal.
Metal tins are available from Solderking.

Disposal and Packaging

Further Information

For disposal with the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used. 10 04 02 Dross skimmings from primary or secondary production.

SECTION 14: Transport Information

Hazard Pictograms

Not hazardous for transport

14.1. UN Number

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14.2. UN Proper Shipping Name

14.3. Transport Hazard Class

ADR/RID	-
Subsidiary risk	-
IMDG	-
Subsidiary risk	-
IATA	-
Subsidiary risk	-

14.4. Packing Group

Packing Group	-
	-

14.5. Environmental Hazards

Environmental hazard	-
Marine Pollutant	-
ADR/RID	
Hazard ID	-
Tunnel Category	-
IMDG	
Ems Code	-
IATA	
Packing Instruction (Cargo)	-
Maximum quantity	-
Packing Instruction (Passenger)	-
Maximum quantity	-

SECTION 15: Regulatory Information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.2 Chemical Safety Assessment – A chemical safety assessment has not been carried out for the mixture.

Xn: R20/22 Harmful by Inhalation and if swallowed

R33: Danger of cumulative effects

N: R50/53 Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.

SECTION 16: Further Information

The information supplied in this safety data sheet is designed only as guidance for the safe use, storage and handling of the product. It is a guide and does not purport to be all inclusive. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. The user should always use the appropriate safety precautions and ask Solderking technical if anything is not understood. This information is related only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process.

Contact info@solderking.com or 01262 363088 if you have any questions or queries regarding this product.