



<b>Grade name:</b>	Lead bullion (General Grade)
<b>Substance:</b>	Lead, bullion
<b>EC Number:</b>	308-011-5
<b>CAS Number:</b>	97808-88-3
<b>Substance Type:</b>	UVCB
<b>Degree of purity:</b>	100 % (w/w)
<b>Description of Product:</b>	Lead, bullion is a mixed metallic substance usually formed during the primary production of lead, but may also be from the smelting of secondary lead containing materials. This substance can contain high concentrations of lead and will also contain other metals in varying concentrations depending on the source of the material.

**Composition:**

Constituents	Typical concentration	Concentration range	Remarks
Lead EC no.: 231-100-4	<= 98.9 % (w/w)	>= 10 — <= 99% (w/w)	Refers to % element. Pb is generally present in the metallic form. Sometimes Pb may also be present in the oxide form (e.g. PbO).
Copper EC no.: 231-159-6	<= 20 % (w/w)	>= 0 — <= 40 % (w/w)	Refers to % element. Cu is generally present in the form of an alloy (e.g. Cu3Sn) and in sulphide form (e.g. Cu2S).
Cadmium EC no.: 231-152-8	<= 0.35 % (w/w)	>= 0 — <= 1 % (w/w)	Refers to % element. Cd is generally present in the form of an alloy (e.g. SbSnAsCd, SbCdZn).
Zinc EC no.: 231-175-3	<= 15 % (w/w)	>= 0 — <= 30 % (w/w)	Refers to % element. Cd is generally present in the form of an alloy (e.g. SbSnAsCd, SbCdZn).
Iron EC no.: 231-096-4	<= 15 % (w/w)	>= 0 — <= 30 % (w/w)	Refers to % element. Fe is assumed to be present in the form of an alloy.
Nickel EC no.: 231-111-4	<= 0.2 % (w/w)	>= 0 — <= 1 % (w/w)	Refers to % element. Ni is assumed to be present in the metallic form.
Silver EC no.: 231-131-3	<= 5 % (w/w)	>= 0 — <= 10 % (w/w)	Refers to % element. Ag is generally present in the form of an alloy (e.g. AgSn).
Gold EC no.: 231-165-9	<= 5 % (w/w)	>= 0 — <= 10 % (w/w)	Refers to % element. Au is assumed to be present in the metallic form.
Antimony EC no.: 231-146-5	<= 32.3 % (w/w)	>= 0 — <= 65 % (w/w)	Refers to % element. Sb is generally present in the form of an alloy (e.g. SbCdZn, SbSn, SbSnAsCd) and may also be

Constituents	Typical concentration	Concentration range	Remarks
			present in the metallic form.
Arsenic EC no.: 231-148-6	<= 5 % (w/w)	>= 0 — <= 10 % (w/w)	Refers to % element. As is generally present in the form of an alloy (e.g. SbSnAsCd).
Bismuth EC no.: 231-177-4	<= 5 % (w/w)	>= 0 — <= 10 % (w/w)	Refers to % element. Bi is assumed to be present in the metallic form.
Tin EC no.: 231-141-8	<= 41.92 % (w/w)	>= 0 — <= 60 % (w/w)	Refers to % element. Sn is generally present in the form of an alloy (e.g. SbSn, Cu3Sn, SbSnAsCd, AgSn) or in the metallic form.
Selenium EC no.: 231-957-4	<= 0.05 % (w/w)	>= 0 — <= 0.1 % (w/w)	Refers to % element. Se is assumed to be present in the metallic form.
Tellurium EC no.: 236-813-4	<= 0.23 % (w/w)	>= 0 — <= 0.5 % (w/w)	Refers to % element. Te is assumed to be present in the metallic form.
Aluminium EC no.: 231-072-3	<= 5 % (w/w)	>= 0 — <= 10 % (w/w)	Refers to % element. Al is assumed to be present in the form of an alloy.
Silicon EC no.: 231-130-8	<= 1.5 % (w/w)	>= 0 — <= 5 % (w/w)	Refers to % element. Si is assumed to be present in the form of an alloy.
Indium EC no.: 231-180-0	<= 5 % (w/w)	>= 0 — <= 10 % (w/w)	Refers to % element. In is assumed to be present in the metallic form.

**Classification:**

**Dangerous Substances Directive 67/548/EEC** - Not classified as hazardous.

**Classification Labelling and Packaging Regulation EC 1272/2008** - Not classified as hazardous.

**Industry classification proposals** - Industry proposes to classify lead, bullion (general grade) to bring it into line with the latest scientific data and knowledge. The proposed classification will be:

**DSD**

Xn; R20/22: Harmful by inhalation and if swallowed.

T; R48/23/25: Toxic: danger of serious damage to health by prolonged exposure through inhalation, and if swallowed.

Carc. Cat. 2; R45: May cause cancer.

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

**CLP**

Acute Tox. 4; H302: Harmful if swallowed.

Acute Tox. 4; H332: Harmful if inhaled.

Carc. 1B; H350: May cause cancer.

STOT Rep. Exp. 2; H373: May cause damage to organs through prolonged or repeated exposure.

Aquatic Chronic 1; H410: Very toxic to aquatic life with long lasting effects.

**Labelling:**

Signal word: Danger

**Hazard pictograms:**

GHS07: exclamation mark



GHS08: health hazard



GHS09: environment



**Hazard statements:**

H302	Harmful if swallowed.
H332	Harmful if inhaled.
H350	May cause cancer.
H373	May cause damage to central nervous system, blood and kidneys through prolonged or repeated exposure by inhalation or ingestion.
H410	Very toxic to aquatic life with long lasting effects.

**Disclaimer**

The statements and content supplied in this document are for information purposes only and do not constitute advice regarding legal or regulatory compliance. You are solely responsible for obtaining legal or regulatory advice necessary in making your own evaluation of any legal or regulatory requirements applicable to you or your company. The International Lead Association Europe and the Pb REACH Consortium do not make any representations or warranties in relation to the statements or content appearing in this document, including as regards their accuracy, completeness or timeliness. Neither the International Lead Association Europe nor the Pb REACH Consortium will be responsible for any loss or damage caused by or arising from reliance on the statements made or information contained in this document.