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| Grade name: | Lead bullion (Grade 4 – low As, Cd, Ni, Sb) |
| Substance: | Lead, bullion |
| EC Number: | 308-011-5 |
| CAS Number: | 97808-88-3 |
| Substance Type: | UVCB |
| Degree of purity: | 100 % (w/w) |
| Description of Product: | "Lead, bullion" is a solid in massive form (at 20°C, 1013 hPa), produced by smelting primary and/or secondary lead-containing feeds and requiring subsequent refining. "Lead, bullion" is composed primarily of metallic lead and may contain other intermetallic phases (in particular tin, as well as copper, antimony, arsenic, bismuth). |

Composition:

| Constituents | Typical concentration | Concentration range | Remarks |
|-------------------------------|-----------------------|------------------------|--|
| Lead EC no.: 231-100-4 | <= 98.9 % (w/w) | Min. 30% (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). |
| Antimony EC no.: 231-146-5 | <= 13 % (w/w) | >= 0 — <= 13 % (w/w) | Refers to % element. Sb is generally present in the form of an alloy (e.g. SbCdZn, SbSn, SbSnAsCd) and may also be present in the metallic form. |
| 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). |
| Tin EC no.: 231-141-8 | <= 41.9 % (w/w) | >= 0 — <= 56 % (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. |
| Arsenic EC no.: 231-148-6 | <= 0.09 % (w/w) | >= 0 — <= 0.09 % (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 — <= 17 % (w/w) | Refers to % element. Bi is assumed to be present in the metallic form. |
| Zinc EC no.: 231-175-3 | <= 15 % (w/w) | >= 0 — <= 30 % (w/w) | Refers to % element. Zn 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 |

| Constituents | Typical concentration | Concentration range | Remarks |
|--------------------------------|-----------------------|------------------------|---|
| | | | form of an alloy. |
| 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. |
| 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 — <= 3 % (w/w) | Refers to % element. Si is assumed to be present in the form of an alloy. |
| Cadmium EC no.: 231-152-8 | <= 0.09 % (w/w) | >= 0 — <= 0.09 % (w/w) | Refers to % element. Cd is generally present in the form of an alloy (e.g. SbSnAsCd, SbCdZn). |
| Nickel EC no.: 231-111-4 | <= 0.2 % (w/w) | >= 0 — <= 0.7 % (w/w) | Refers to % element. Ni is assumed to be present in the metallic form. |
| 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. |
| 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 — <= 0.4 % (w/w) | Refers to % element. Te is assumed to be present in the metallic form. |

Classification:**Industry self-classification in accordance with the Classification Labelling and Packaging Regulation EC 1272/2008 (CLP)**

Repr. 1A; H360: May damage fertility. May damage the unborn child.

Lact.; H362: May cause harm to breast-fed children.

STOT Rep. Exp. 1; H372: Causes damage to organs through prolonged or repeated exposure.

Aquatic Chronic 3; H412: Harmful to aquatic life with long lasting effects.

Labelling:

Signal word: Danger

Hazard pictograms:

GHS08: health hazard



Hazard statements:

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|--------|---|
| H360FD | May damage fertility. May damage the unborn child. |
| H362 | May cause harm to breast-fed children. |
| H372 | Causes damage to central nervous system, blood and kidneys through prolonged or repeated exposure by inhalation or ingestion. |
| H412 | Harmful to aquatic life with long lasting effects. |
| EUH208 | Contains Nickel |

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