



Lead REACH  
CONSORTIUM

<b>Grade name:</b>	Lead, dross, copper rich
<b>Substance:</b>	Lead, dross, copper rich
<b>EC Number:</b>	273-925-2
<b>CAS Number:</b>	69227-11-8
<b>Substance Type:</b>	UVCB
<b>Degree of purity:</b>	100 % (w/w)
<b>Description of Product:</b>	'Lead-dross, copper-rich' is a solid at 20°C and 101.3 kPa produced by chemical reactions during the cooling of molten lead bullion to temperatures in the range >330°C - 450°C. The resultant sulphidic precipitate formed on the surface is removed by skimming. 'Lead, dross, copper-rich' is composed primarily of metallic lead, lead sulphides and copper sulphides.

### Composition:

Constituent	Typical concentration	Concentration range	Remarks
Lead EC no.: 231-100-4	≤ 93.19 % (w/w)	>10.0 — ≤95.0 % (w/w)	refers to % element. In general Pb is mainly present in the metallic form and may also be present in the form of compounds such as sulphides (e.g. PbS, PbCuS), oxides (e.g. PbO, PbSb <sub>2</sub> O <sub>6</sub> , SnPbNaO) and in the form of an alloy (e.g. PbMoSe).
Copper EC no.: 231-159-6	≤ 24.0 % (w/w)	>0.0 — ≤40.0 % (w/w)	refers to % element. In general Cu is mainly present in the sulphide form (e.g. Cu <sub>2</sub> S, CuFeS <sub>2</sub> , PbCuS) and may also be present in the form of other compounds such as oxides (e.g. ZnCuAgO) and/or in the form of alloys (e.g. Cu <sub>3</sub> (Sn,Sb) and/or in the form of arsenides (e.g. CuAs).
Sulphur EC no.: 231-722-6	≤ 15.0 % (w/w)	>0.0 — ≤30.0 % (w/w)	refers to % element. S is generally present in the form of sulphides (e.g. PbS, CuFeS <sub>2</sub> , CdS) and may also be present in the form of sulphates (e.g. ZnSO <sub>4</sub> ).
Zinc EC no.: 231-175-3	≤ 2.0 % (w/w)	≥0.0 — ≤10.0 % (w/w)	refers to % element. Zn is generally present in the form of compounds such as sulphides (e.g. ZnS, ZnSe(Mo,Cd)S) and/or oxides (e.g. ZnCuAgO), hydroxides (e.g. ZnOH) and sulphates (e.g. ZnSO <sub>4</sub> ).
Cadmium EC no.: 231-152-8	≤ 0.83 % (w/w)	≥0.0 — ≤4.0 % (w/w)	refers to % element. Cd is generally present in the sulphide form (e.g. ZnSe(Mo,Cd)S, CdS).
Iron EC no.: 231-096-4	≤ 9.77 % (w/w)	≥0.0 — ≤12.5 % (w/w)	refers to % element. Fe is generally present in the oxide form (e.g. FeZn oxide, Fe <sub>3</sub> O <sub>4</sub> ) and may also be present in the form of other compounds such as sulphides (e.g. FeS <sub>2</sub> , CuFeS <sub>2</sub> ) and/or in the form of arsenides (e.g. CuAs).
Cobalt EC no.: 231-158-0	≤ 0.116 % (w/w)	≥0.0 — ≤1.0 % (w/w)	refers to % element. Co is assumed to be present in the oxide form.

Constituent	Typical concentration	Concentration range	Remarks
Nickel EC no.: 231-111-4	≤ 2.17 % (w/w)	≥0.0 — ≤2.5 % (w/w)	refers to % element. Ni is generally present in the form of an alloy (e.g. SbNiAs, SnNiSb, NiSbSnAg).
Silver EC no.: 231-131-3	≤ 0.906 % (w/w)	≥0.0 — ≤5.0 % (w/w)	refers to % element. Ag is generally present in the form of an alloy (e.g. AgSn, NiSbSnAg).
Antimony EC no.: 231-146-5	≤ 11.0	≥0.0 — ≤20.0 % (w/w)	refers to % element. Sb is generally present in the form of an alloy (e.g. SbNiAs, SnNiSb, NiSbSnAg) and may also be present in the oxide form (e.g. PbSbAsO, PbSb <sub>2</sub> O <sub>6</sub> ).
Arsenic EC no.: 231-148-6	≤ 4.92 % (w/w)	≥0.0 — ≤10.0 % (w/w)	refers to % element. As is generally present in the form of an alloy (e.g. SbNiAs) and in the oxide form (e.g. PbSbAsO) and/or in the form of arsenides (e.g. CuAs, FeAs).
Bismuth EC no.: 231-177-4	≤ 0.45 % (w/w)	≥0.0 — ≤1.0 % (w/w)	refers to % element. Bi is generally present in the metallic form.
Tin EC no.: 231-141-8	≤ 9.24 % (w/w)	≥0.0 — ≤40.0 % (w/w)	refers to % element. Sn is generally present in the oxide form (e.g. SnPbNaO, SnNaO) and/or in the form of an alloy (e.g. SnNiSb, Cu <sub>3</sub> (Sn,Sb), AgSn, NiSbSnAg).
Selenium EC no.: 231-957-4	≤ 1.21 % (w/w)	≥0.0 — ≤3.0 % (w/w)	refers to % element. Se is generally present in the form of an alloy (e.g. PbMoSe) or in the form of a compound (e.g. ZnSe(Mo,Cd)S).
Tellurium EC no.: 236-813-4	≤ 2.49 % (w/w)	≥0.0 — ≤3.5 % (w/w)	refers to % element. Te is assumed to be present in the oxide form.
Aluminium EC no.: 231-072-3	≤ 0.1 % (w/w)	≥0.0 — ≤2.0 % (w/w)	refers to % element. Al is assumed to be present in the form of a compound.
Manganese EC no.: 231-105-1	≤ 0.1 % (w/w)	≥0.0 — ≤0.5 % (w/w)	refers to % element. Mn is assumed to be present in the oxide form.
Silicon EC no.: 231-130-8	≤ 0.6 % (w/w)	≥0.0 — ≤2.5 % (w/w)	refers to % element. Si is generally present in the form of silicates (e.g. SiO <sub>2</sub> ).
Potassium EC no.: 231-119-8	≤ 0.48 % (w/w)	≥0.0 — ≤0.5 % (w/w)	refers to % element. K is assumed to be present in the form of a compound.
Sodium EC no.: 231-132-9	≤ 1.33 % (w/w)	≥0.0 — ≤2.0 % (w/w)	refers to % element. Na is generally present in the oxide form (e.g. SnPbNaO, SnNaO).
Magnesium EC no.: 231-104-6	≤ 0.4 % (w/w)	≥0.0 — ≤12.0 % (w/w)	refers to % element. Mg is assumed to be present in the form of a compound.
Calcium	≤ 0.6 % (w/w)	≥0.0 — ≤2.5 % (w/w)	refers to % element. Ca is assumed to be present in the form of a compound.

Constituent	Typical concentration	Concentration range	Remarks
EC no.: 231-179-5			

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

Acute Tox. 4; H302: Harmful if swallowed.

Acute Tox. 4; H332: Harmful if inhaled.

Skin Sens. 1; H317: May cause an allergic skin reaction.

Resp. Sens. 1; H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Muta. 2; H341: Suspected of causing genetic

Carc. 1A; H350: May cause cancer.

Repr. 1A; H360FD: 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 1; H410: Very toxic to aquatic life with long lasting effects.

Aquatic Acute 1; H400: Very toxic to aquatic life.

**Labelling**

Signal word: Danger

**Hazard pictograms:**

GHS07: exclamation mark



GHS08: health hazard



GHS09: environment

**Hazard statements:**

H302 Harmful if swallowed.

H332 Harmful if inhaled.

H317 May cause an allergic skin reaction.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H341 Suspected of causing genetic defects.

H350 May cause cancer.

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.

H410 Very toxic to aquatic life with long lasting effects.

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