



Name:	Slags, lead smelting (Boundary composition)
Substance:	Slags, lead smelting
EC Number:	273-825-9
CAS Number:	69029-84-1
Substance Type:	UVCB
Degree of purity:	100 % (w/w)
SIP description:	Slags, lead smelting is a solid in particulate or granular form. It is produced in blast furnace processes, under reducing conditions, applied to primary and secondary lead-containing feeds. Slags, lead smelting is composed primarily of iron and calcium silicates, and has only low levels of lead.

Composition:

Constituents	Typical concentration	Concentration range	Remarks
Lead EC no.: 231-100-4	≤ 3.3 % (w/w)	≥ 0 — ≤ 20 % (w/w)	Refers to % element. Pb is generally present in form of compounds such as sulphides (e.g. (Fe,Zn,Cu,Pb)S). It can also be present in the metallic form.
Copper EC no.: 231-159-6	≤ 1.5 % (w/w)	≥ 0 — ≤ 10 % (w/w)	Refers to % element. Cu is generally present in the form of sulphides (e.g. (Fe,Zn,Cu,Pb)S) or in the form of an alloy (e.g. Cu(Sn,Sb)).
Cobalt EC no.: 231-158-0	≤ 0.098 % (w/w)	≥ 0 — ≤ 0.1 % (w/w)	Refers to % element. Co is assumed to be present in the oxide form.
Sulfur EC no.: 231-722-6	≤ 4 % (w/w)	≥ 0 — ≤ 35 % (w/w)	Refers to % element. S is generally present in the sulphide form (e.g. FeS, (Fe,Zn,Cu,Pb)S) and/or sulphates (e.g. FeSO _x).
Arsenic EC no.: 231-148-6	≤ 0.38 % (w/w)	≥ 0 — ≤ 10 % (w/w)	Refers to % element. As is generally present in the form of an arsenide (e.g. FeAs).
Zinc EC no.: 231-175-3	≤ 14.9 % (w/w)	≥ 0 — ≤ 30 % (w/w)	Refers to % element. Zn is generally present in the form of sulphides (e.g. (Fe,Zn,Cu,Pb)S), oxides (e.g. ZnFe ₂ O ₄ , Fe(Zn)O) and/or in the form of an alloy (e.g. PbZnMo).
Cadmium EC no.: 231-152-8	≤ 0.02 % (w/w)	≥ 0 — ≤ 10 % (w/w)	Refers to % element. Cd is assumed to be present in the oxide form.
Iron EC no.: 231-096-4	≤ 37.5 % (w/w)	Min. 3% w/w	Refers to % element. Fe is generally present in the

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			compounds form such as oxides (e.g. FeO, Fe ₃ O ₄ , Fe(Zn)O), sulphides (e.g. FeS, (Fe,Zn,Cu,Pb)S), sulphates (e.g. FeSO _x) and/ or silicates (e.g. Fe ₂ SiO ₄) and may also be present in the form of an alloy (e.g. FeCrNi) and/or arsenide (e.g. FeAs).
Nickel EC no.: 231-111-4	≤ 0.04 % (w/w)	≥ 0 — ≤ 10 % (w/w)	Refers to % element. Ni is generally present in the form of an alloy (e.g. FeCrNi).
Silver EC no.: 231-131-3	≤ 0.01 % (w/w)	≥ 0 — ≤ 0.02 % (w/w)	Refers to % element. Ag is assumed to be present in the oxide form.
Bismuth EC no.: 231-177-4	≤ 0.1 % (w/w)	≥ 0 — ≤ 5 % (w/w)	Refers to % element. Bi is assumed to be present in the oxide form.
Tin EC no.: 231-141-8	≤ 1.5 % (w/w)	≥ 0 — ≤ 10 % (w/w)	Refers to % element. Sn is generally present in the form of an alloy (e.g. Cu(Sn,Sb)).
Selenium EC no.: 231-957-4	≤ 0.01 % (w/w)	≥ 0 — ≤ 0.1 % (w/w)	Refers to % element. Se is assumed to be present in the oxide form.
Tellurium EC no.: 236-813-4	≤ 0.023 % (w/w)	≥ 0 — ≤ 0.1 % (w/w)	Refers to % element. Te is assumed to be present in the oxide form.
Aluminium EC no.: 231-072-3	≤ 7.54 % (w/w)	≥ 0 — ≤ 15 % (w/w)	Refers to % element. Al is generally present in the form of compounds such as silicates.
Chromium EC no.: 231-157-5	≤ 0.9 % (w/w)	≥ 0 — ≤ 5 % (w/w)	Refers to % element. Cr is generally present in the form of an alloy (e.g. FeCrNi).
Manganese EC no.: 231-105-1	≤ 1 % (w/w)	≥ 0 — ≤ 10 % (w/w)	Refers to % element. Mg is generally present in the form of compounds such as silicates.
Antimony EC no.: 231-146-5	≤ 0.3 % (w/w)	≥ 0 — ≤ 10 % (w/w)	Refers to % element. Sb is generally present in the form of alloys (e.g. Cu(Sn,Sb)).
Silicon EC no.: 231-130-8	≤ 29.3 % (w/w)	≥ 0.05 — ≤ 35 % (w/w)	Refers to % element. Si is generally present in the form of silicates (e.g. Fe ₂ SiO ₄).
Calcium EC no.: 231-179-5	≤ 24 % (w/w)	≥ 0.05 — ≤ 25 % (w/w)	Refers to % element. Ca is generally present in the form of silicates (e.g. Ca ₃ Mg(SiO ₄) ₂).
Magnesium EC no.: 231-104-6	≤ 3.91 % (w/w)	≥ 0 — ≤ 20 % (w/w)	Refers to % element. Mg is generally present in the form of compounds such as silicates.
Barium EC no.: 231-149-1	≤ 1.85 % (w/w)	≥ 0 — ≤ 2 % (w/w)	Refers to % element. Ba is assumed to be present in the oxide form.
Potassium EC no.: 231-119-8	≤ 0.24 % (w/w)	≥ 0 — ≤ 20 % (w/w)	Refers to % element. K is assumed to be present in the form of compounds.

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Sodium EC no.: 231-132-9	≤ 0.71 % (w/w)	≥ 0 — ≤ 20 % (w/w)	Refers to % element. iUVCB classification based on Na in metallic form.
Chlorine EC no.: 231-959-5	≤ 0.09 % (w/w)	≥ 0 — ≤ 7 % (w/w)	Refers to % element. Cl is assumed to be present in the form of compounds.
Molybdenum EC no.: 231-107-2	≤ 0.02 % (w/w)	≥ 0 — ≤ 0.02 % (w/w)	Refers to % element. Mo is generally present in the form of an alloy (e.g. PbZnMo).

Classification:**Industry self-classification according to Classification Labelling and Packaging Regulation EC 1272/2008:****CLP**

Carc. 1B; 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 Acute 1; H400: Very toxic to aquatic life.

Aquatic Chronic 2; H411: Toxic to aquatic life with long lasting effects.

Labelling:

Signal word: Danger

Hazard pictograms:

GHS08: health hazard



GHS09: environment

**Hazard statements:**

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.

H400 Very toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

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